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THE COTTON GIN.

THE HISTORY OF ITS INVENTION.

Exhibiting Copies of
ORIGINAL PATENT SPECIFICATIONS AND DRAWINGS,

With Synopsis

OF TESTIMONY IN THE TWENTY-SEVEN LAW SUITS RELATING TO
INFRINGEMENTS IN GEORGIA, 1796 TO 1805.

ILLUSTRATED WITH ORIGINAL DRAWINGS.

By D. A. TOMPKINS.

CHARLOTTE, N. C.

PUBLISHED BY THE AUTHOR.

1901.

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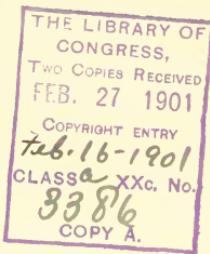
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D. A. TOMPKINS.

This pamphlet is an advance publication of Chapter II, from a book, "COTTON AND COTTON OIL," now in course of preparation.
For Table of Contents of the book, see last pages of this pamphlet.

The Invention of the Saw Gin.

Much as has been written on the subject of the invention of the saw cotton gin, the question as to the credit for fundamental ideas, and their development into a commercial machine, seems yet to lack authoritative discussion.

It is so easy to collate a large amount of matter from writers, who themselves have copied the works of others, purporting to relate history, that it is small wonder that well nigh as many errors as facts should have been frequently copied and re-copied. This seems to be especially the case in America concerning the cotton gin, on account of its being an American invention of such note, and of comparatively recent date.

Crude cotton as it is produced in the field, consists of fluffy masses of cotton lint adhering to seeds. It is called in this condition "seed cotton." The varieties of cotton may be divided into two general classes; "Upland" and "Sea Island." This distinction is based mainly on the length of the fibre or "staple" the former having fibres varying from $\frac{5}{8}$ to $1\frac{1}{4}$ inches and the latter from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches. The lint of upland cotton adheres very firmly to the seeds, appearing to grow out of it like wool from a sheep's back. The seeds, after being denuded of lint as well as possible, still have a woolly appearance. In a great many sub-varieties the seeds are green in color, thus giving to upland cotton, in general, the name "green-seed cotton," as distinguished from Sea Island cotton, whose seeds are black. Sea Island, or long staple cotton does not adhere so closely to the seeds, and it can be easily pulled off clean, leaving the seeds perfectly smooth. These seeds are vulgarly called "bald-headed seed."

A gin is a machine for separating lint cotton from the seed. The word gin is supposed to be a contraction of engine, and the word has been used to indicate a number of contrivances for doing work, such as hoisting, etc., on

the same reasoning that in England at the present time, the machine in use for carding cotton is known as the carding engine.

Recent usage, especially in America, has restricted the use of the word engine to mean some prime mover, and the use of the word gin to mean cotton gin.

The term cotton, as commercially used in the United States, refers generally to upland cotton, that being the kind mostly produced. When Sea Island Cotton is referred to, it is specially mentioned. In the same way the term "gin" is used to designate the saw gin, which is the particular kind in use with upland cotton. The machine used for separating Sea Island cotton from the seed is known as the "roller gin."

The saw gin has a saw cylinder, made up of circular saws, spaced by collars on a mandrel or shaft. The saws project into a breast box, through grooves or ribs set close enough together to prevent the passage of seed. The teeth pull the lint through the ribs and leave seed behind. Revolving in an opposite direction to the saw-toothed cylinder, parallel to it, and in a contiguous box, is another cylinder covered with bristles, which brushes the lint out of the teeth and delivers it into a room or into a condenser. The brush cylinder revolves 4 or 5 times as fast as the saw cylinder.

The first method of separating lint from the seeds was naturally by hand picking. The next method, originating in India about 300 B. C., was by means of rollers, which running closely together, would pull the lint through and leave the seed behind.

The roller gin now in use for ginning sea island cotton is a modern development from this India gin.

As most of the ancient Eastern cottons were of the black seed varieties, the roller gin was fairly successful, though the seeds would often become cracked between the rollers and pass on through and mix with the lint. The seeds contain considerable water and nitrogenous matters, so that those crushed are liable to decay, and thus to give to lint cotton prepared in this manner a foul odor.

During the War of the American Revolution, and imme-

diately thereafter, cotton culture began to receive considerable attention in the Southern States. As the coast country was the first to be settled; and as the valuable Sea Island varieties grew to perfection on that soil, these were first cultivated. They were prepared for market by hand, and by the roller gins, both processes being very slow. The roller gin then in use would clean about 5 times as much cotton per day as could be cleaned by hand.

When upland varieties began to be cultivated further inland where Sea Island would not grow, the roller gin proved entirely inadequate and unsuitable, so that the extension of cotton growing soon reached its limit. In many cases, it surpassed the limit, and much cotton was wasted for want of being separated from its seed, and made ready for market.

In 1792, Eli Whitney of Massachusetts went by boat to Savannah, Ga., from which place he intended to go into the interior as a tutor in a private family. On the same boat was traveling Mrs. Nathaniel Greene, the widow of the American Revolutionary General, who was returning from a Northern trip to her home at Mulberry Grove, near Savannah, Ga. On this journey Whitney naturally made the acquaintance of Mrs. Greene. Arriving in Savannah, he failed to perfect his arrangement for teaching and accepted an invitation from Mrs. Nathaniel Greene to make his home at her house and pursue the study of law, which was his great desire.

While he was in Mrs. Greene's house he exhibited great talent for mechanics, and made himself useful in that respect around the plantation.

In the spring of 1793, some old comrades of General Greene: Majors Brewer, Forsythe and Pendleton, who lived near Augusta, Ga., called on Mrs. Greene. In the course of their visit they discussed the troubles of agriculture in the upper country, and mentioned the fact that much upland cotton could be profitably produced if there were only some machine for separating the lint from the seed. Mrs. Greene proposed that they talk over the matter with young Whitney. The result of that visit was that

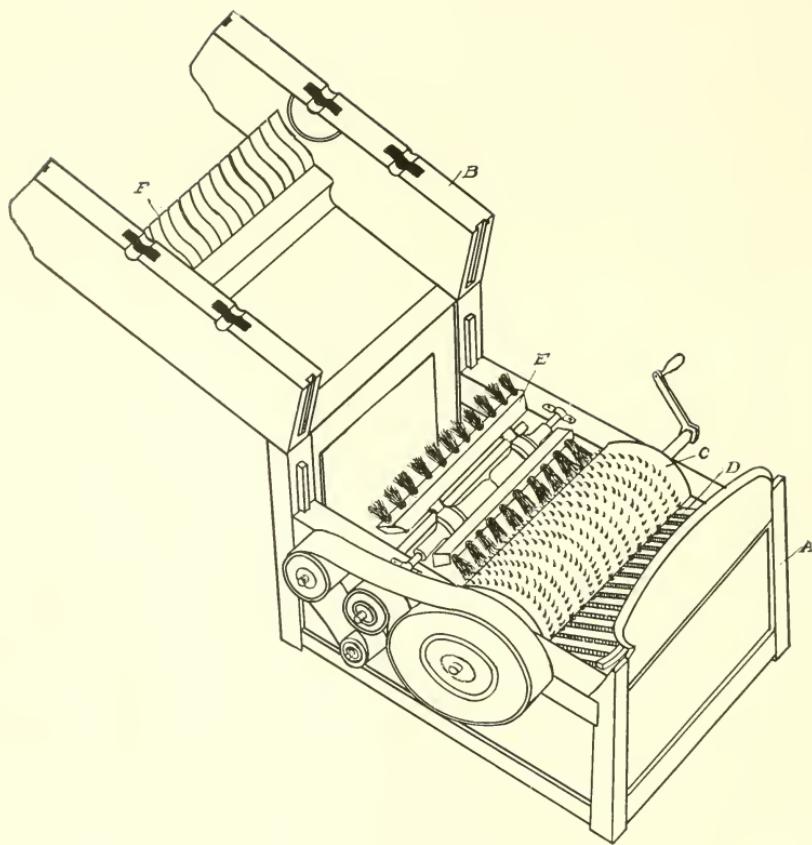
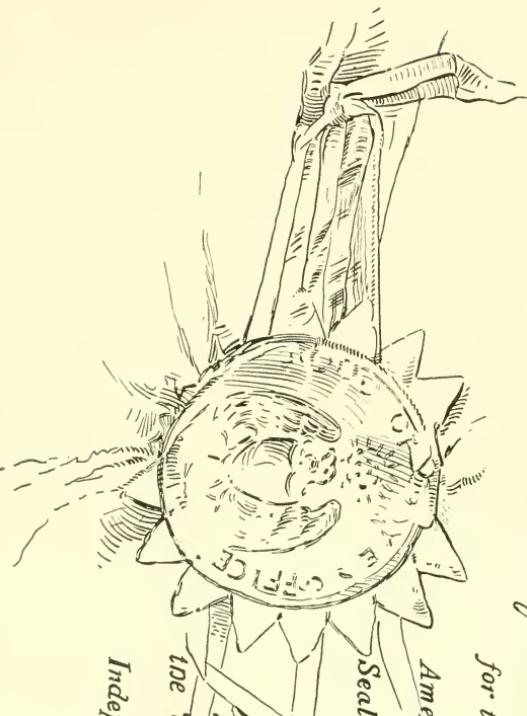


FIG. I.
Whitney's Original Model.

In faith whereof, I *James Madison* ————— Secretary
for the Department of State of the United States of
America ————— signed these presents, and caused the
Seal of my ————— to be affixed thereto, at the City of
Washington, this Twenty-seventh day of
April ————— A. D. 1804, and in
the year ————— A. D. ————— year of the
Independence of the said States,



James Madison

FIG. II.

Whitney was given a room in the basement of the house, and after considerable experimenting, produced a machine that successfully separated the lint from seed.

Fig. 1 is copied from an old print which is said to represent Whitney's original model. This is not an official record, but it is confirmed by comparison with the patent drawing, Fig. 3.

In 1793 Whitney went to New Haven, Conn., to confer with his old friend and patron, Elizur Goodrich and others, in relation to obtaining a patent.

The original description in Whitney's own words, accompanying his petition for patent was filed with Thomas Jefferson, Secretary of State at Philadelphia, June 20, 1793. Whitney also made affidavit concerning his invention before Elizur Goodrich, Notary Public, and Alderman of New Haven, Conn., Oct. 28, 1793.

A patent was issued to Eli Whitney March 14, 1794, and signed by George Washington, President, Edmund Randolph, Secretary of State and Wm. Bradford, Attorney General.

During some litigation over validity of the patent in the United States District Court in Savannah, Georgia, 1804 a copy of the complete patent and specification and drawing was filed with the court. This copy was certified by James Madison, Secretary of State, April 27, 1804, as shown by Fig. 2.

This copy, taken from the records of the Court, is given verbatim in the Appendix, marked Document II. Fig. 3 is a photograph of the drawing, accompanying this certified patent, and Fig. 4 is the certification of the whole set by the Deputy Clerk of the United States Court.

These documents are now on file in the United States Court House, Savannah, Ga., and are believed to be the only authentic records of this patent in existence. The original patent papers filed in the Patent Office by Whitney in 1793, were destroyed by the Patent Office fire in 1836. See Appendix, Document IV. As soon as possible after this fire, the authorities made efforts to obtain copies of all papers that were destroyed. It so happened, how-

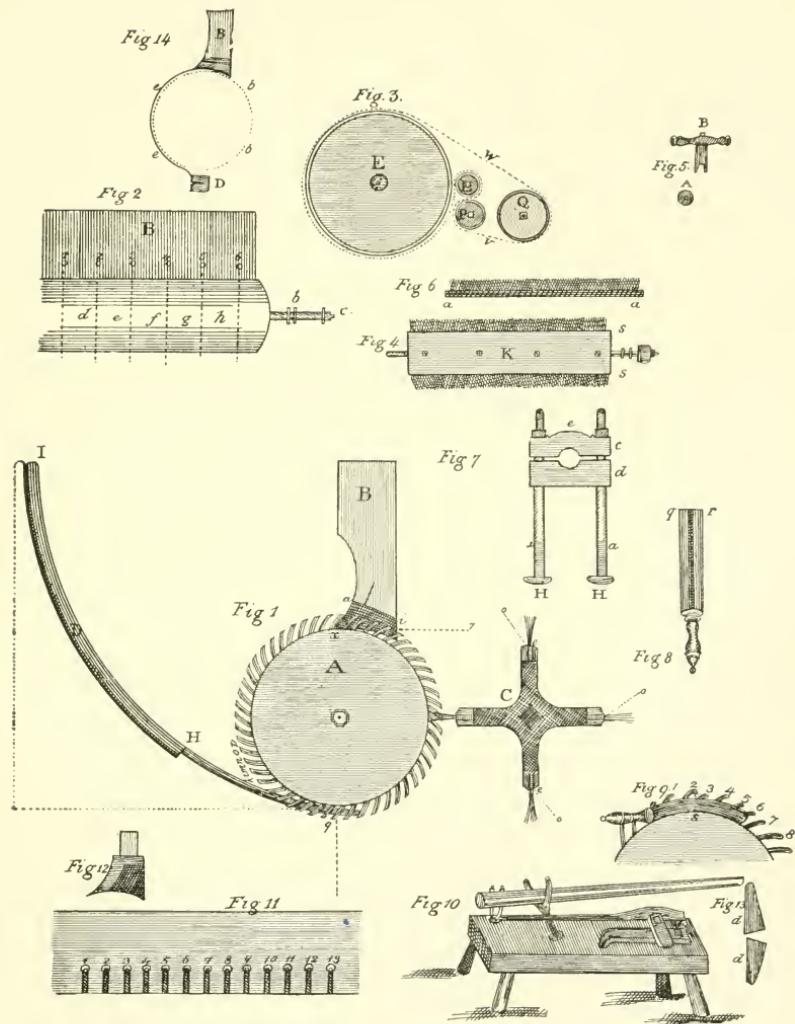


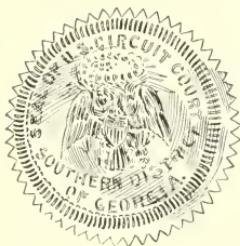
FIG. III.

Original Certified Patent Drawing.
Note that no saws are shown.

UNIT STATES OF AMERICA,
Cochran DIVISION, SS.

SOUTHERN DISTRICT OF GEORGIA

I, *J. B. Gillespie, Asst.* clerk of the
Court of the United States of America, for the Southern District of
Georgia, do hereby certify that the Writing annexed to this certificate is a true copy
of the *Respective original now on file, and remaining on record in my office*
To wit: *Patent and Specifications of the Whitney*
Colton Gin Patent No. March 14, 1794.



IN WITNESS WHEREOF, I have caused the seal of the said Court to be
hereunto affixed at the City of *Atlanta* in the Southern
District of Georgia, this *18th* day of *May*
in the year of our Lord, one thousand eight hundred and ninety-eight
and of the Independence of the United States, the one hundred and
twenty-second.

J. B. Gillespie, Asst. Clerk.

the frame, in such manner as to give room for the clearer on one side of it
and the Hopper on the other, as in fig. I. - Its height, if the machine is
worked by hand should be about three feet four inches: otherwise it may be

FIG. IV.

Certification of Whitney Patents, etc., showing few lines of the documents attached.

ever, that they never secured the certified copy on record in Savannah, Ga., but they received from some source not shown on the records, on May 2, 1841, what purported to be a copy of the Whitney patent. Figs. 5 and 6 are the drawings accompanying the document. The full text of the 1841 specification is given in the Appendix, Document III.

It will be noticed in comparing this 1841 record with the original, that the original specification gives a much more detailed account of the method of constructing the gin, even to the extent of describing and illustrating the method of cutting the wire which was used for making the spiked teeth in the cylinder, and describing in great detail the method of inserting the bristles in the brush, and giving some alternate methods; and in all other cases referring to alternate methods, the particular alternate methods are described. But the very clear and extended specification in the original makes no suggestion of an alternate method of constructing the cylinder, as for example, the use of circular saws. Neither does the original drawing show any suggestion of saws. But the specification of 1841 concludes with a paragraph not found in the original, viz: "There are several modes of making the various parts of this machine, which, together with their particular shape and formation are pointed out and explained in a description with drawings, attested, as the Act directs, and lodged in the Office of the Secretary of State."

There is a curious mistake noticeable in the drawing of 1841, Fig. 5, that would surely indicate that Eli Whitney himself never even saw it; that is, the handle by which the machine is to be turned is applied the brush shaft, instead of the main cylinder, which is the way it is described in both the authentic and the substituted specification; and this is the only way it could be made to work in practice.

Whitney's authentic specifications say, in describing the brush, "IV. The clearer, C Fig. I, is constructed in the following manner: Take an iron axis, perfectly similar to

2 Sheets - Sheet 1.
E. Whitney,
Cotton Gin.
Patented Mar. 14, 1794.

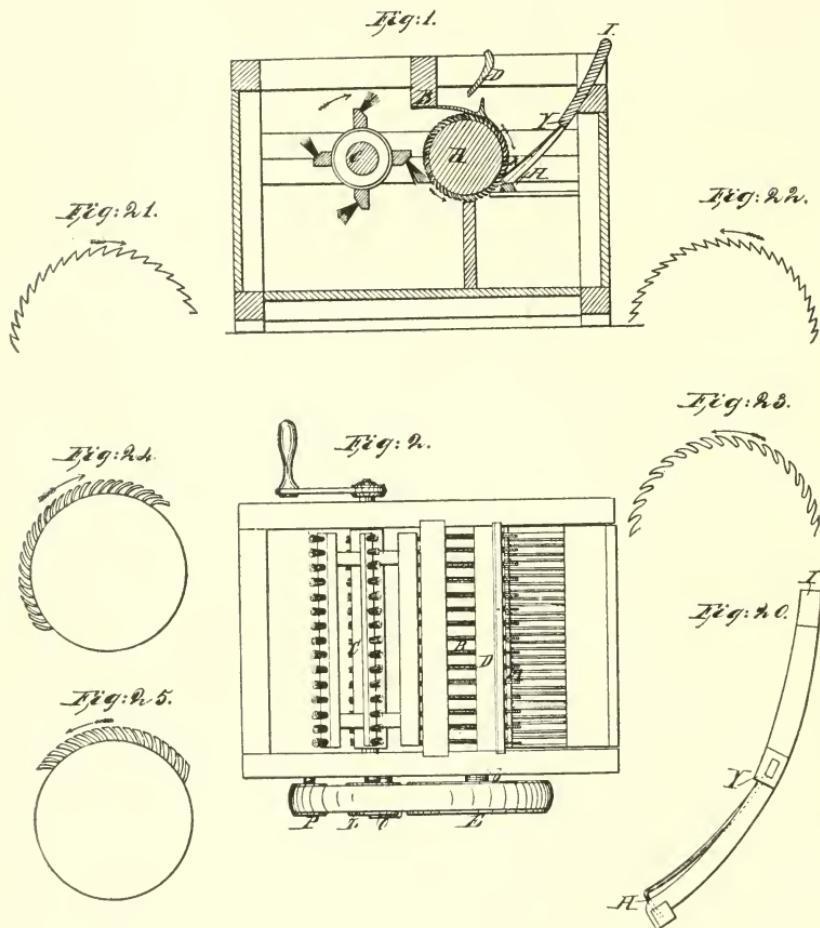


FIG. V.

Drawing Accompanying the Substituted Patent.
Note that Saws are Shown on This Drawing.

E. Whitney,

23 Streets - Street R.

Cotton Gin.

Patented Mar:14, 1794.

-Fig: 8.

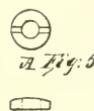
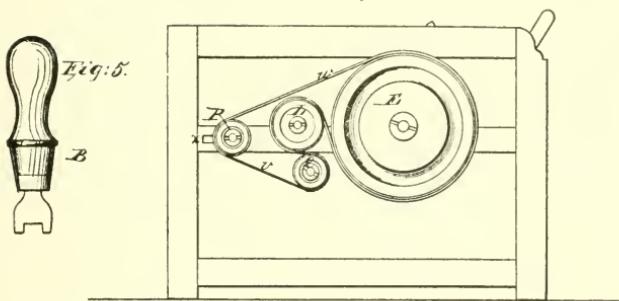


Fig: 14.

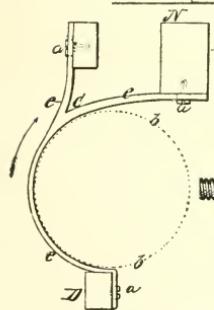


Fig: 7.

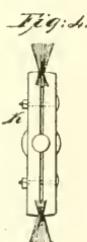
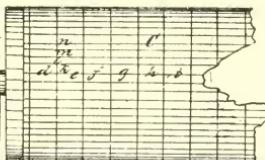


Fig: 11.

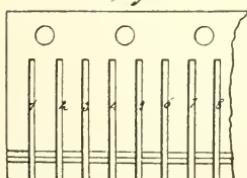


Fig: 12.

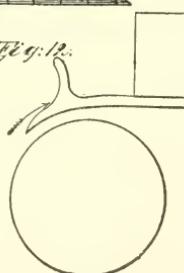


FIG. VI.

Drawing Accompanying Substituted Patent.

that described as extending through the cylinder, except that it need not be so large nor fitted for the application of a winch.

Whoever made the drawing for the patent office after the fire, could not have understood the principles of the gin, otherwise, this error in placing the winch (or hand crank) could not have occurred.

These substituted drawings have some of the features of the authentic patent drawings, besides some features of the gins that were built about 1841. They also embrace a number of features totally at variance with the principles of Whitney's or any other gin.

The substituted drawings show sketches of saws, while there is nothing in the authentic drawings or specifications, even in the most remote way, suggesting the idea of a saw. These peculiar additions, which occur in the substituted documents, were evidently intended to establish a claim for Whitney for the invention of the saw gin, whereas the authentic patent papers amply refute such a claim.

The substituted specifications, while being in the main a synopsis of the authentic specifications, omit all reference to drawings, either original or substituted.

There were tried in the United States Court, district of Georgia, 27 suits for infringement of the Whitney gin patent. Among the papers in the evidence introduced in these suits, is a certified copy of a patent for a gin, issued May 12, 1796, to Hodgen Holmes of Augusta, Ga.

A certified copy of this patent is given in full in the Appendix, Document VI.

No drawing accompanies the patent, and the specifications are very meagre. The patent in itself does not in any way describe the fundamental operations of the gin, and does not state whether the teeth are made of wire or cut out of sheet metal in the shape of saws. The model which would demonstrate that, was burned in the Patent Office, and has never been replaced. The records show that Holmes could not write his name, but made "his mark." It is natural, therefore, that his specifications, which had to be put in the inventor's own language, should

not be so clear as that of Whitney, who was a Yale graduate, and who had the assistance of two Yale Professors, (Josiah Stebbins and Elizur Goodrich) in the preparation of his papers.

It is certain that Holmes was granted a patent, signed by George Washington, President, Timothy Pickering, Secretary of State and Chas. Lee, Attorney General. It is also certain that gins with saw teeth were in use about that time. In a book (Origin, Cultivation and Uses of Cotton) by W. B. Seabrook, President Agricultural Society of South Carolina, published in Charleston in 1844, the author says: "The Holmes machine was set up in the grist mill of Capt. James Kincaid on Mill Creek in Craven (now Fairfield) County, South Carolina, in 1795, and is reported to have been the first of the saw gins used in that State."

In the petition for injunction, filed in the United States Court, District of Georgia, by Whitney versus Arthur Fort and John Powell, March 16, 1804. (For full text  Appendix, Document V) defendants are charged with infringements beginning 1800. In the petition occurs this language: "And it is also pretended . . . that the machine used by them contains in it an improvement; . . . that is to say, teeth, cut into circular pieces of metal."

A great deal of Whitney's correspondence has been published, in which the invention is discussed; but previous to the letter by his partner Miller to Whitney, Feb. 15, 1797, no allusion whatever is made to the saw principle. In this letter, Miller says: "It will be best to take the deposition of Goodrich and Stebbins on the subject of ratchet wheels, which may hereafter be rendered useful." The words "ratchet wheels" refer to a description often used in court in describing gin saws. This was on account of the similarity of the gin saw to the thin iron ratchet wheel used on the end of the wooden cloth roll of a hand loom to hold the cloth taut. The full text of this letter is given in Appendix, Document VII.

The only evidence adduced to prove that Whitney

invented the saw principle, is the deposition of some Yale College friends of Whitney's in New Haven, taken Nov. 7, 1807, fourteen years after the first specifications were written. These depositions were taken by commission, at whose sittings the defence (though formally notified) were not represented. These depositions are now on file among the Court records above mentioned. They are all to the effect that the saw was in Whitney's mind when he made the invention, although it was not mentioned in the specifications.

This research and discussion is not intended as an impeachment, even by insinuation of the characters of the New Haven witnesses, most of whom the records show to be men of importance and integrity; but it seems proper to call attention to the facts:

1. That they testified to matters happening 14 years previously.
2. That there were only two years intervening between the issuance of Whitney's patent describing the spiked cylinder and the issuance of the Holmes patent for the saw cylinder.
3. That Whitney himself did at some early date make the gins with saws, and that it would naturally be hard to get the dates exact, after so long a time and at so great a distance.
4. That the memories of these witnesses were amply refreshed. In support of this last observation, dated Oct. 15, 1803, is adduced a letter from Whitney to Josiah Stebbins, one of the witnesses to whom interrogatories were addressed. In this letter, Whitney asks Stebbins to depose as follows: "I, Jos. Stebbins, etc., etc., do testify and declare . . . that in the autumn of 1793 . . . that said Whitney repeatedly told me that he had originally contemplated making a whole row of teeth from one plate or piece of metal + + + *I hope you will be able to call to mind the circumstance mentioned above + +.*"

The full text of this letter is given in Appendix, Docu-

ment VIII. The fact that the depositions of most of the other witnesses examined were substantially in the language of this letter written by Whitney to Stebbins, seems to afford reasonable ground for stating that the memories of the other witnesses were similarly refreshed.

When the case versus Fort and Powell came up for final adjudication, the Court gave a decree for perpetual injunction. Prof. Olmstead quotes the text of the decree, in which occurs the following language: "A Mr. Holmes has cut teeth in plates of iron, and passed them over the cylinder. This is certainly a meritorious improvement in the mechanical process of constructing this machine + + + . Whitney may not be at liberty to use Mr. Holmes' iron plate, but certainly Mr. Holmes' improvement does not destroy Mr. Whitney's patent right."

The defence in all of the extensive litigation over the patent in Georgia, consists principally in claiming that there was a prior invention. The witnesses mostly relied upon to prove this were Dr. John Cortes Dyampert of Columbia County, Georgia, and Mr. Roger McCarthy of Chatham County, Georgia. The former swore he saw a machine "somewhere in the Domains of the King of Prussia" in 1773, used for making lint in hospitals. McCarthy swore he saw something similar in 1790 or 1791. But it developed on cross-examination, and on the introduction of numerous other witnesses, whose depositions are on file among the Court records, that these machines were on entirely different principles, and used for other purposes. There were no means of separation other than gravity in any of these machines, and they were all for beating and cleaning lint after seed had been removed.

It was finally admitted by the defence that Whitney's invention was new, but that the infringing machines were made before Whitney's model was publicly exhibited, or before it was publicly announced that he had a patent.

See Fort's answer in Whitney vs. Fort and Powell, U. S. Court, District of Georgia, Dec. 17, 1805, Appendix, Document V.

There is a widespread allegation that "Whitney was badly treated in the South." This seems to rest on the rumor that his first model was stolen from his shop at Mulberry Grove, Ga., that copies of it were widely made and used without license, that his witnesses failed to appear at the trials, that the South Carolina legislature after agreeing to pay him for the patent, afterward rescinded its action; and finally that there was a conspiracy among the cotton planters to invalidate his patent.

As to the burglary of Whitney's shop, and stealing of his models, there is not a word in the voluminous records of evidence in the infringement suits, extending over 13 years. Neither is any mention made of it in his published correspondence. This seems conclusive proof that the story is of subsequent and spurious origin.

The facts regarding Whitney's experiences with the legislature of South Carolina, have been carefully investigated, and an abstract of the State House Records on this subject is given in the Appendix, Document IX.

An examination of these papers shows that Dec. 10, 1801, at the close of the session, the legislature passed a bill purchasing the Whitney patent right for the State for \$50,000, agreeing to pay \$20,000 in cash, and the remainder in three equal annual installments, provided Whitney would make "within a reasonable time" two models of his gin, in his very best style, and file them for public inspection in the State capitol, and provided further, that Whitney should refund all the amounts previously collected for license in the State. The cash payment was promptly made. But Whitney did not, within two years comply with either requirement. The legislature in 1803 declared the contract forfeited, and provided for entering suit for the recovery of the first payment. This action brought the final fulfillment of the conditions on the part of Whitney, in 1804, and then the legislature of 1804 ordered the suit discontinued and reinstated the contract in accordance with which the deferred payments were promptly made.

The legislature of North Carolina in December, 1802,

bought the patent right for that State, and agreed to pay for it by a special tax of 2 shillings and six pence on each saw used in a gin within the State for four years. This tax was properly collected and turned over to the inventor, amounting to about thirty thousand dollars.

Whitney's plan in Georgia, as shown by his letters and other evidence was to own all the gins and gin all the cotton made in the country. It is but human nature that this sort of monopoly should be odious to any community; and when to this is added the fact, (as shown by letters to Whitney in Connecticut, from his partner Miller in Georgia) that Whitney and Miller could not supply the demand for gins, it seems natural that there should have been much infringement. After the gins were introduced in 1794, there was a large cotton crop made for the next season, on the presumption that it could be prepared for the market on the new machines. But when the crop was gathered, and the gins were not forthcoming, many planters had rude gins made in their own blacksmith shops. From this circumstance, arose the rumors that the various workmen who made the gins were the original inventors. One of the traditions crediting the invention to Jesse Bull of Columbia County, Ga., (afterwards of LaGrange, Ga.,) arose from the circumstance of a gin having been made for Bull by one of his employees, Nathan Lyons. It is said that when the first Whitney gins were in use in the country, no one but women were allowed to see them, and that Nathan Lyons, disguised as a woman, saw the gin and copied it.

This legendary story has no authentic foundation. The voluminous evidence in the infringement suits nowhere refers to such an incident.

Quite a number of legends about the invention of the gin have no foundation whatever in fact. For example, the pleasant little story about the gin brush being suggested by the lady with her turkey tail fan.

Laying aside all legendary stories, it appears that the real facts about the cotton gin are:

1. Eli Whitney, of Mass., a graduate of Yale College,

invented a cotton gin, consisting of spikes driven in a wooden cylinder, and having a slotted bar through which these spike teeth passed, and having a brush to clear the spikes. He obtained a patent March 14, 1794, signed by George Washington, President, Edmund Randolph, Secretary of State, and Wm. Bradford, Attorney General.

2. Hodgen Holmes of Georgia, an uneducated mechan-ic, invented an improved gin, using circular saws properly spaced, passing through spaces between ribs. For this invention he obtained a patent May 12, 1796, signed by George Washington, President, Timothy Pickering, Sec-
retary of State and Chas. Lee, Attorney General.

3. Whitney's invention, consisting of a combination of a wooden cylinder, carrying annular rows of wire spikes, with a slotted bar and clearing brush was fundamental

4. The practical application of the fundamental idea was Holmes' invention of the saw gin, which consisted of a mandrel or shaft carrying collars separating circular saws which pass through narrow spaces between ribs.

5. Whitney went South utterly impecunious. He re-
ceived from the Southern States the following amounts:

From South Carolina	\$50,000
From North Carolina, (at least).....	30,000
From Tennessee, (about)	10,000

Total royalties from Southern States, certainly
as much as \$90,000

At that time, this was a fortune.

6. In Georgia, his firm (Miller & Whitney) attempted to monopolize the ginning business. This brought on long and vexatious litigation, and the object was never successfully accomplished.

chattel lands & tenements, from henceforth altogether to
desist from using the said machine & invention.

And your orators shall ever pray &c

Johny Noll of Counsel
with Complain^t.

Eli Whitney being duly sworn maketh oath
that the matters of fact stated in this his bill
as far as concern his own act & deed are true
of his own knowledge & that what relates to
the act & deed of any other person or persons
he believes to be true.

Sworn before me
This 31 January 1805

Eli Whitney

= W. M. Stiles C.R.

FIG. VII.

Eli Whitney's Autograph.

APPENDIX.

Containing Documents Relating to
the Early History of the
Saw Gin.

Document I.

LIST OF SUITS FOR INFRACTION
MENT AND DAMAGES BROUGHT
BY WHITNEY IN UNITED STATES
DISTRICT COURT, SAVANNAH,
GA.

Edward Lyons, 1795, non-suit, 1798.
 Wm. Kennedy & Co., 1795, verdict for defendant.
 Fred Ballard, 1798, non-suit, 1799.
 McKinney & Co., 1801, dismissed, 1804.
 William Clark, 1801, non-suit, 1803.
 John Morrison, 1801, defendant dead.
 William Byrnes, 1801, non-suit, 1803.
 John Walker, 1801, non-suit, 1804.
 Chas. Gachet, 1801, non-suit, 1803.
 Isaiah Carter, 1801, non-suit, 1803.
 Wm. Few, 1801, verdict for defendant.
 John Davis, 1801, non-suit, 1803.
 Sam'l Devereux, 1801, not served.
 Solomon Marshall, 1801, settled.
 Arthur Fort, 1801, not served.
 James Moore, 1801, not served.
 Ignatius Few, 1801, not served.
 Sam'l Higginbotham, 1801, non-suit, 1803.
 Jonathan Embree, 1801, non-suit, 1803.
 Henry Keebler, 1801, non-suit, 1803.
 D. W. Easley, 1801, non-suit, 1803.
 Silus Grigg, 1801, not found.
 Arthur Fort, 1801, non-suit, 1803.
 Arthur Fort and John Powell, 1804, decree for perpetual injunction, Dec. 19th, 1806.
 Chas. Gachet, 1806, verdict for \$1,500, May 11th, 1808.
 Isaiah Carter, 1806, verdict for \$2,000, May 10th, 1808.
 Wm. Byrnes, 1807, judgment by default, 1811.

Document II.

CERTIFIED COPY OF THE ORIGINAL PATENT SPECIFICATIONS FILED IN THE PATENT OFFICE BY ELI WHITNEY, 1793-4.

This paper is now on file in the United States Court House, Savannah, Ga.

Document III.

COPY OF SPECIFICATIONS FILED WITH THE PATENT OFFICE IN 1841, AFTER THE FIRE. THIS PURPORTS TO BE A REPRODUCTION OF THE ORIGINAL PAPERS. IT IS PRINTED IN PARALLEL COLUMN, SO IT MAY BE COMPARED WITH THE AUTHENTIC COPY.

This paper is now on file in the Patent Office at Washington.

UNITED STATES OF AMERICA.
To all to whom these Letters Patent shall come:

WHEREAS, Eli Whitney, a citizen of the United States, hath alleged that he has invented a new and useful improvement in the mode of spinning cotton, which improvement he states has not been known or used before his application; hath made & a h that he does verily believe that he is the true inventor or discoverer of the said improvement; hath paid into the Treasury of the United States the sum of thirty dollars, delivered a receipt for the same, and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted: THESE ARE THEREFORE to grant, according to law, to the said Eli Whitney, his heirs, administrators or assigns, for the term of fourteen years from the sixth day of November last, the full and exclusive right and liberty of making, constructing, using, vending to others to be used, the said improvements; a description whereof is given in the words of the said Eli Whitney, himself, in the schedule hereunto annexed, and is made a part of these presents.

In testimony whereof I have caused these Letters to be made Patent, and the Seal of the United States to be hereunto affixed.

GIVEN under my hand, at the City of Philadelphia, this fourteenth day of March, in the year of our Lord one thousand, seven hundred and ninety-four, and of the Independence of the United States of America the eighteenth.

(Seal.)

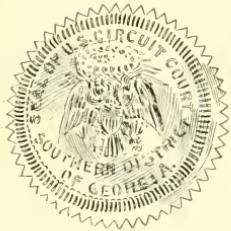
G. WASHINGTON.
EDM. RANDOLPH,
Secretary of State.

(NOTE.—Corresponding clause occurs at the end of this paper.)

UNITED STATES OF AMERICA,
Circuit DIVISION, } ss.

SOUTHERN DISTRICT OF GEORGIA

Clerk I, H. B. Gilstrap, Apg Clerk of the
Court of the United States of America, for the Southern District of
Georgia, do hereby certify that the Writing annexed to this certificate is a true copy
of the respective original now on file, and remaining on record in my office
To wit: Patent and Specification of Eli Whitney
Colton Gin Patent No. March 14, 1794.



IN WITNESS WHEREOF, I have caused the seal of the said Court to be
hereunto affixed, at the City of Savannah, of the Southern
District of Georgia, this 18th day of May
in the year of our Lord, one thousand eight hundred and ninety eighth
and of the Independence of the United States, the one hundred and
twenty fourth

H. B. Gilstrap, Apg Clerk.

the frame, in such manner as to give room for the clearer on one side of it
and the Hopper on the other, as in fig. I. - Its height, if the machine is
worked by hand should be about three feet four inches: otherwise it, may be

FIG. IV.

Certification of Whitney Patents, etc., showing few lines of the documents attached.

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City of Philadelphia, to-wit:

I do certify that the foregoing Letters Patent were delivered to me on the fourteenth day of March, in the year of our Lord one thousand, seven hundred and fifty-four, to be examined; that I have examined the same, and find them conformable to law; and I do hereby return the same to the Secretary of State within fifteen days from the date aforesaid, to-wit, on this fourteenth day of March, in the year aforesaid.

WM. BRADFORD,
Attorney General of the United States.

The schedule referred to in these letters patent and making part of the same, containing a description in the words of the said Eli Whitney himself of an improvement in the mode of ginning cotton.

A short description of the machine invented by the subscriber for ginning cotton.

The principal parts of this machine are 1st, the frame; 2d, the cylinder; 3d, the breastwork; 4th, the clearer and 5th, the hopper.

1st. The frame by which the whole work is supported and kept together,

is of a square or parallelogramic form and proportioned to the other parts as may be most convenient.

A description of a new invented cotton gin, or machine for cleansing and separating cotton from its seeds.]

This machine may be described under five divisions, corresponding to its five principal parts, viz: 1. Frame. 2. The Cylinder. 3. The Breastwork. 4. The Cleaner. 5. The Hopper.

1. The frame, by which the whole work is supported and kept together, ought to be made of well seasoned timber, so that it may be firm and steady, and never become loose in the joints. Scantling four inches by three, will perhaps be stuff, of as suitable size as any. The frame should be of a square or parallelogramic form, the width must answer to the length of the cylinder and the height and length may be proportioned as circumstances shall render convenient.

In the drawing annexed, Fig. 1, is a section of the machine. A represents the cylinder, B the breastwork, C the clearer and D the hopper.

2. The cylinder is of wood; its form is perfectly described by its name, and its dimensions may be from six to nine inches diameter, and from two to five feet in length. This cylinder-cylinder is placed horizontally across the frame, in such manner as to give room for the clearer on one side of it, and the hopper on the other as in Fig. 1. Its height, if the machine is worked by hand should be about three feet four inches; otherwise it may be regulated by convenience. In the cylinder is fixed an iron axis so large as to turn in the lathe without quivering. The axis may pass quite through the cylinder or consist only of gudgeons, driven with cement in each end. There must be a shoulder at C, Fig. 2, on each side the bear-

2d. The cylinder is of wood, its form is perfectly described by its name, and its dimensions may be from six to nine inches diameter, and from two to five feet in length. The cylinder is placed horizontally across the frame, leaving room for the clearer on one side, and the hopper on the other. In the cyl-

inder is fixed an iron axis which may pass quite through, or consists only of gudgeons driven into each end.

There are shoulders on this axis, to

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ing or box to prevent any horizontal variation in the cylinder. The bearings of the axis or those parts which rest on the boxes must be rounded in a lathe, so that the centre of the axis may coincide with the centre of the cylinder. One end of the axis should extend so far without the frame as to admit the winch, by which it is turned, to be connected with it at C, and so far at the other end as to receive the whirl designed for putting the clearer in motion. The brass boxes, in which the axis of the cylinder runs, consist each of two parts, C and D, Fig. 7. The lower part, D, is sunk into the wood of the frame to keep it firm and motionless and the upper part, C, is kept in its place by two small iron bolts, H, headed on the lower end at H. These bolts are inserted into the under side of the rail or scantling of the frame and continued up through both parts of the box. A portion of the bolts as H, A, should be square, to prevent them from turning. The upper part of the box, C, is screwed down close with a nut on the end of each bolt. At E, is a perforation for conveying oil to the axis. After the cylinder with its axis is fitted and rounded with exactness, the circular part of its surface is filed with teeth set in annular rows. The spaces D, E, F, G, H, Fig. 2, between the rows of teeth must be so large as to admit a cotton seed to turn around freely in them every way, and ought not to be less than seven-sixteenths of one inch.

The spaces K, L, M, N, &c, Fig. 1, between the teeth, in the same row, must be so small as not to admit a seed or a half seed. They ought not to exceed one-twelfth of an inch; and I think about one-sixteenth of an inch the best. The teeth are made and set in the following manner: Take common iron wire, about No. 12, 13 or 14, draw it about three sizes less, without annealing in order to stiffen it. Cut it into pieces four or five feet in length and straighten them. Steel wire would perhaps be best if it were not too expensive.

Then with a machine, somewhat like that used for cutting nails, cut the wire into pieces about one inch long. In the jaws of this machine at O, Fig. 10, are fixed the two pieces of steel D, D, which are pressed together, as may be observed from the figure, by the operation of a compound lever. These pieces of steel are so set in, that upon being

prevent any horizontal variation, and it

extends so far without the frame as to admit a winch at one end, by which it is put in motion, and so far at the other end as to receive the whirl by which the clearer is turned. The sur-

face of the cylinder is filled with teeth, set in annular rows, which are at such a distance from each other as to admit a cotton seed to play freely in the space between them. The space be-

tween each tooth in the same row, is so small as not to admit a seed, nor a half seed to enter it. These teeth are

made of stiff iron wire, driven into the wood of the cylinder. The teeth are

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pressed together, their approaching surfaces, meet only on one side next to D, D, leaving between them a wedge like opening, which enlarges as the distance from the place of contact increases. On the side, D, D, about one inch distant from the place of contact, is fixed a guage. The wire is inserted on the side opposite D, D, and thrust this to the guage. Then on forcing down the lever the wire is separated, leaving that end of the wire next the side D, D, cut smoothly and transversely off, and the end of the other part flattened like a wedge. The flattened end is then thrust forward to the guage and the same operation is repeated. In this manner the teeth are cut of equal length, with one end flattened and the other cut directly off. Flattening one end of the wire is beneficial in two ways: 1. The flattened ends of the teeth are driven into the wood with more ease and exactness. 2. It prevents them from turning-turning after they are set. To prevent the wires from bending while driving, they are holden with pliers the jaws of which ought to be about half an inch in width, with a corresponding transverse groove in each jaw. Thus holden, the teeth are, with a light hammer driven, one by one, into the cylender, perpendicularly to its axis. Then with a tool, like a chisel or common screw driver each tooth is inclined directly towards the tangent to that point of the circle, into which it is set, till the inclination is such that the tooth and tangent form an angle of about 55 or 60 degrees. If this inclination be greater, the teeth will not take sufficient hold of the cotton, if it be less there will be more difficulty in disengaging the cotton from the teeth, after it is separated from the seeds.

When the teeth are all set they should be cut of an equal length. In order for this, take a crooked guage, Fig. 8, having two prongs, O, R, the curvature of which corresponds with that of the cylinder. This guage is merely a crooked fork, the thickness of whose prongs or tines, as represented between S and T, Fig. 9, equalizes the length of the teeth, and is applied to the cylinder, with one tine on each side of an annular row. With a pair of cutting pliers, cut the teeth 1, 2, 3 and 6, off even with the guage, then slide it along to 6, 7, 8, &c., and so proceed till you have trimmed all the teeth to an equal length. This done put the cylender into a lathe and with

all inclined the same way and in such a manner, that the angle included between the tooth and a tangent drawn from a point into which the tooth is driven, will be about 55 or 60 degrees. The gudgeons of the cylinder run in brass boxes, each of which is in two parts, one of which is fixed in the wood of the frame and the other is confined down upon the axis with screws.

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a file bring the teeth to a kind of angular point, resembling a wire flattened and cut obliquely. After the teeth are brought to a proper shape, smooth them with a polishing file and the cylinder will be finished.

Remark. Though the dimensions of the cylinder may be varied at pleasure, yet it is thought that those described are the best, being more easily made and kept in repair, than those of a larger size. The timber should be quarter stuff, i. e., a quarter of the trunk of the tree, otherwise it will crack in seasoning. It must also be of wood of an equal density, such as beech, maple, black birch, &c. In oak and many other kinds of wood, there are spaces between the grains which are not so hard as the grains themselves; and the teeth driven into these spaces would not stand sufficiently firm, while the grains are so hard as to prevent the teeth from being driven without bending.

3. The breastwork, Fig. 2, and B, Fig. 1 and Fig. 2, is fixed above the cylinder parallel and contiguous to the same. It has transverse grooves or openings 1, 2, 3, 4, &c., through which the rows of teeth pass as the cylinder revolves: and its use is to obstruct the seeds while the cotton is carried forward through the grooves by the teeth. That side of the breastwork next the cylinder should be made of brass or iron, that it may be the more durable. Its face or surface A, X, Fig. 1, ought to make an angle with the tangent X, Z, less than 50 degrees. A tooth in passing from K up to the breastwork B, fastens itself upon a certain quantity of cotton, which is still connected with its seeds. The seeds being too large to pass through the breastwork are there stopped, while the cotton is forced thro' the groove and disengaged from the seeds. Now if the point of the tooth enters the groove before the root, or that part next the cylinder it carries through all which it has collected in coming from K; but if the root of the tooth enter the groove before the point, part of the cotton fastened on it, will slide off, and this latter case is preferable as it helps to give the cotton a rotary motion in the hopper. The thickness of the breastwork, or the distance from A to I, Fig. 1, should be about $2\frac{1}{2}$ or 3 inches, in proportion to the length of the cotton. It should be such that the cotton which is carried through by the teeth may be discon-

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3d. The breastwork is fixed above the cylinder, parallel and contiguous to the same. It has transverse grooves or openings through which the rows of teeth pass as the cylinder revolves and its use is to obstruct the seeds while the cotton is carried forward through the grooves by the teeth. The thickness of the breastwork is two and half or three inches and the under side of it is made of iron or brass.

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nected from from that which is left in the hopper, before it leaves the grooves, otherwise that which is carried partly through the breastwork will be by the motion of that with which it is connected in the hopper become so collected and knotted at I, as to obstruct and bend the teeth.**

The under part of the breastwork next the cylinder, ought, as has before been observed, to be made of iron or brass. It may be cast either in a solid piece and the openings for the passage of the teeth cut with a saw and files, or in as many parts as there are spaces between the several rows of teeth in the cylinder and in form of Fig. 12, and the pieces set, by means of a shank or tenon, in a groove running lengthwise along the wooden part of the breastwork.

The breastwork described, if properly constructed, will it is thought answer every valuable purpose. But I shall mention one of a different construction which I have used with success, and is made in the following manner:

Form a breastwork of the same shape and dimensions as the one before described, entirely of wood. Place a bar of wood one inch below the cylinder and parallel to it, then with straps or ribs of iron, brass or tin plate connect the breastwork of wood with the bar below.

The ribs or straps must be so applied as to sit close to the surface of the cylinder between the wooden breastwork and the bar, and if of a width that will permit them to work freely between the annular rows of teeth. That end of each strap which is fastened to the breastwork should divide widthwise into two parts, one of which should pass along the lower surface of the breastwork, and the other run up its front. In Fig. 14, B, is the wooden breastwork, D, the bar below the cylinder, the dotted circle B, B, the cylinder E, E, the strap C, the place where the strap divides, and A, A, A, wood screws or nails with which the strap is made fast to the bar and breastwork.

4. The clearer C, Fig. 1, is constructed in the following manner: Take an iron axis perfectly similar to that described as extending through the cyl-

**If the perforation about 3-16 of an inch be made through the breastwork at the upper part or end of each groove, the metal part need not be more than $\frac{3}{8}$ of an inch thick.

4th. The clearer is placed horizontal with and parallel to the cylinder. Its length is the same as that of the cylinder, and its diameter is proportioned by convenience. There are two, four or more brushes or rows of bristles, fixed in the surface of the clearer

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ender, except that it need not be so large nor fitted for the application of a winch. Frame together crosswise at right angles two pieces of timber of suitable size and of a length about equal to the diameter of the cylinders, so as to make the four arms equal in length, and insert the axis through the centers of two crosses or frames of this kind. Let their distance from each other be one-third of the length of the cylinder and make them fast on the axis. The arms of the two crosses are then connected by four pieces, of the same length of the cylinder, equidistant from the axis, and parallel to the same, and to each other. In each of the parallel pieces, on the outside or side opposite the axis, a channel is made lengthwise for the reception of a brush. The brush is made of hog's bristles, set in a manner somewhat similar to that of setting the reeds in a weaver's sleigh. Between two strips of wood about $\frac{1}{8}$ of an inch in thickness and half an inch in breadth, is placed a small quantity of bristles, then a strong thread or twine is wound round the sticks, close to the bristles, then another quantity of bristles is inserted, etc., till a brush is formed, equal in length to the cylinder.*

The bristles on the side A, A, Fig. 6, are smeared with pitch or resin and seared down with a hot iron even with the wood, to prevent them from drawing out. On the other side they are cut with a chisel to the length of about one inch from the wood. A brush of this kind is fixed in each of the before mentioned channels.

The boxes as well as axis of the clearer, are like those of the cylinder, parallel to it and at such a distance, that while it revolves the ends of the bristles strike with a small degree of friction on the cylinder's surface. Its use is to brush the cotton from the teeth after it is forced through the grooves and separates from its seeds. It turns in a direction contrary from that of the cylinder, and should so far outrun it, as completely to sweep its whole surface.**

*(Perhaps nailing these straps together would be better than winding them with twine.)

**(The brushes may be fixed in a stock which is movable by screws so as to bring them nearer or carry them farther from the cylinder.)

in such a manner that the ends of the bristles will sweep the surface of the cylinder.

Its axis and boxes are similar to those of the cylinder. It is turned by means of a band and whirls, moves in

a contrary direction from the cylinder by which it is put in motion, and so far outruns it, as to sweep the cotton from the teeth as fast as it is carried through the breastwork. The periphery of the whirls is spherical and the band a broad strap of leather.

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A clearer with two brushes may be made by simply screwing upon the axis the board K, Fig. 4, and another similar board on the opposite side, which leave spaces for the insertion of the brushes, S, S. The cleaner may be also formed of a cylinder with grooves running lengthwise in it for the reception of the brushes; or in any other way, which may be found convenient.

The number of brushes in the clearer is not material; but let it be observed that the distance from E to E, Fig. 1, between the brushes, must be at least 4 or 5 inches, otherwise the cotton will wind up 'round the clearer. The surface of the clearer moving much faster than that of the cylinder, the brushes sweep off the cotton-cotton from the teeth. The air put in motion by the clearer, and the centrifugal force of the cotton disengage it from the brushes. Note. It is best to set the brushes in the grooves in such a manner, that the bristles will make an angle of about 20 or 25 degrees, with the diameter of the clearer, in the direction E, O, Fig. 1. By that means the bristles fall more perpendicularly on the teeth, strike them more forcibly, and clear off the cotton more effectually.

The clearer is put in motion by the cylinder, by means of a band and whirls. These whirls are plain wheels of solid wood, about $2\frac{1}{2}$ or 3 inches thick, their periphery is a spherical surface swelling at the centre, and sloping off at the edges. To give them a proper shape, take a perfect globe of the same diameter as your intended whirl; inscribe upon it a circle dividing it into two equal parts; then cut the globe on each side, parallel to the plane of the circle, and at the distance from it, of half the thickness of your whirl. On these whirls runs a leather band, the breadth of which answers to the thickness of the whirls. The band may be broader or narrower and the whirls thicker or thinner in proportion as the resistance to be overcome is greater or less. The reason for giving-giving the whirls this shape is to secure them the better from being unbanded. A band of this kind always inclines to the highest place on the whirl, and is much less liable to be cast off from the work, when it runs on a special surface, than when it runs in a groove in the periphery of the whirl.

The whirls are four in number and must be so arranged as to make their

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central planes coincident. The whirl E, Fig. 3 is fixed upon the end of the axis of the cylinder without the frame, and the button A, Fig. 5, is screwed on with the screw driver, B, to keep the whirl in its place. L is put upon the axis of the clearer in the same manner. P, Q, whose axes are pivots made fast in the frame, are false whirls added for two purposes. 1. To make the clearer turn in a contrary direction from the cylinder. 2. For the purpose of doubling the band more completely round the small whirl L, so as to bring a greater portion of the whirl's surface into contact with the band, increase the friction and consequently turn the whirl more forcibly. The first of these purposes might be accomplished by the addition of one false whirl, but the second not so fully without two. The dotted line W, V, represents the band. The diameters of the whirls E, L, should be so-so proportioned as to produce a proper degree of velocity in the clearer. The axis of the whirl Q, is fixed in a plate of iron, which is movable in a groove in the side of the frame and the band is made tighter or looser by moving the plate. This arrangement of whirls produces the same movement as a cog wheel and pinion, with much less friction and expence, and without the rattling noise, which is always caused by the quick motion of cog wheels.

5. One side of the hopper is formed by the breastwork, the two ends by the frame, and the other side is movable so that, as the quantity of cotton put in at one time decreases, it may slide up nearer the cylinder, and make the hopper narrower. This is necessary in order to give the seeds a rotary motion in the hopper, by bringing them repeatedly up to the cylinder till they are entirely stripped of the cotton. D, Fig. 1, is a section of the movable part of the hopper. The part from H to I should be concave on the side next the breastwork, or rather it should be a portion of a hollow cylinder. Between H and Y, is a crate of wire through which the sand, and the seeds as soon as they are thoroughly cleansed, fall into a receptacle below. The crate may be either fixed in the frame or connected with the movable part of the hopper. The wires of which the crate is made should be large and placed perpendicular to the cylinder, that the cotton may turn the more easily in the hopper.

5th. One side of the hopper is formed by the breastwork, the two ends by the frame, and the other side is movable from and towards the breastwork, so as to make the hopper more or less capacious.

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A few additional remarks will sufficiently shew the construction, use and operation of this machine. The cotton is put in the hopper, I, D, H, K, A, U, S, Fig 1, in as large a quantity as the cylinder will put in motion. Some of the seeds become stripped sooner than others. If it be black seed cotton, the seeds become smooth, will most of them fall through the cage as soon as they are clean, but a considerable part of the green seeds which they are thus denominated from being covered with a kind of green coat, resembling velvet will continue in the hopper. It will not answer therefor to supply it gradually as the quantity in it diminishes, because the seeds will soon grow cumbersome and by their constant intervention prevent the teeth from attaching themselves to the cotton so fast as they otherwise would, but one hopper full must be finished, the movable part drawn back, the hopper cleared of seeds and then supplied with cotton anew.

There is a partition Y, W, under the cylinder on the left-left hand of which or the side beneath the hopper, the seeds fall, and the clean cotton on the other side. There may be a receptacle for the clean cotton in the frame, but it is best to have an opening through the wall or partition into a contiguous room, then place the end of the machine against this opening and let the cotton fly into a close room; or it may fall through an opening in the floor into a room below.

This machine may be turned by horses or water with the greatest ease. It requires no other attendance, than putting the cotton into the hopper with a basket or fork, narrowing the hopper when necessary and letting out the seeds after they are clean. One of its peculiar excellencies is, that it cleanses the kind called green seed cotton almost as fast as the black seed. If the machinery is moved by water it is thought it will diminish the usual labor of cleaning the green seed cotton at least forty-nine fiftieths.

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The cotton is put into the hopper, carried thro' the breastwork by the teeth, brushed off from the teeth by the clearer and flies off from the clearer, with the assistance of the air, by its own centrifugal force. The ma-

chine is turned by water, horses or in any other way as is most convenient.

There are several modes of making the various parts of this machine, which together with their particular shape and formation are pointed out and explained in a description with drawings, attested as the act directs and lodged in the office of the Secre-

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The foregoing is a description of the machine for cleansing cotton alluded to in a petition of the subscriber, dated Philadelphia, June 20th, 1793, and lodged in the office of the Secretary of State, all alleging that he, the subscriber, is the inventor of said machine, and signifying his desire of obtaining an exclusive property in the same.

ELI WHITNEY.

Signed in presence of

CHAUNCEY GOODRICH,
Counsellor at Law, Hartford.
JOHN ALLEN,
Counsellor at Law, Litchfield.

State of Connecticut, ss. City of New Haven.

I, Elizur Goodrich, Esq., Alderman for said City, and Notary Public, by lawful authority admitted and sworn, residing in said City, and by law authorized to administer oaths, do hereby certify, declare and make known to whom it doth or may concern: That at said City on the twenty-eighth day of October, one thousand, seven hundred and ninety-three, Eli Whitney, of the county of Worcester, in the commonwealth of Massachusetts, now residing in said City, personally appeared before me, the said Alderman and Notary, and made solemn oath, that he does verily believe that he the said Whitney, is the true inventor and discoverer of the machine for ginning cotton, a description whereof is hereto annexed by me, the said Alderman and Notary, by my seal Notarial, and that he, the said Whitney, verily believes that a machine of similar construction hath never before been known or used.

In testimony whereof, I, the said Alderman and Notary, have hereunto set my hand and seal at the city aforesaid on the day above said.

(L.S.) ELIZUR GOODRICH,
Alderman and Notary Public.

UNITED STATES OF AMERICA.

To all to whom these Letters Patent shall come:

Whereas, Eli Whitney, a citizen of the State of Massachusetts, in the United States hath alleged that he has invented a new and useful improvement in the mode of ginning cotton, which improvement has not been known or used before his application, has made oath, that he does verily believe that he is the true inventor or

ter of State. ELI WHITNEY.

Signed in presence of

CHAUNCEY GOODRICH,
Counsellor at Law, Hartford.
JOHN ALLEN,
Counsellor at Law, Litchfield.

(Received and recorded May 2, 1841,
and Ex'd W. G. C.)

(NOTE.—Corresponding clause occurs at the beginning of this paper.)

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discoverer of the said improvement, has paid into the Treasury of the United States, the sum of thirty dollars, delivered a receipt for the same and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose: These are therefore, to grant according to law, to the said Eli Whitney, his heirs, administrators or assigns, for the term of fourteen years, from the sixth day of November last, the full and exclusive right and liberty of making, constructing, using and vending to others to be used the said improvement, a description whereof is given in the words of the said Eli Whitney, himself, in the schedule-schedule hereto annexed and is made a part of these presents.

In testimony whereof, I have caused the letters to be made patent and the Seal of the United States to be hereunto affixed.

Given under my hand at the city of Philadelphia, this fourteenth day of March, in the year of our Lord, one thousand, seven hundred and ninety-four, and of the Independence of the United States of America, the eighteenth.

(L. S.) GEO. WASHINGTON.

By the President.

EDM. RANDOLPH.

City of Philadelphia, to-wit:

I do hereby certify that the foregoing Letters Patent were delivered to me on the fourteenth day of March, in the year of our Lord, one thousand, seven hundred and ninety-four, to be examined. That I have examined the same, and find them conformable to law. And I do hereby return the same to the Secretary of State, within fifteen days from the date aforesaid, to-wit: On this same fourteenth day of March, in the year aforesaid.

WM. BRADFORD.

Attorney General, United States.

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Eli Whitney himself of an improvement in the mode of ginning cotton.

Document IV.

In Reply Please Refer to
C. W. K. Letter No. 8348.
All communications should
be addressed to
"The Commissioner of Patents, Wash-
ington, D. C.
Department of the Interior,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 18, 1901.

Mr. D. A. Tompkins,
United States Industrial Commission,
Bliss Building, Washington, D. C.

Sir:—Your letter of the 14th instant has been received, and in reply thereto the Commissioner directs me to say that on December 15, 1836, a fire destroyed the building in which the Patent Office was, with all the models and records and the library. By an act of March 3, 1837, provision was made to restore the specifications, drawings and models, by obtaining duplicates of them from the persons possessing the originals, for which purpose an appropriation of \$100,000 was made. The whole number of models destroyed was about 7,000, and the records covered about 10,000 inventions. The work of restoration continued for twelve years, and \$88,237.32 was expended out of the amount allowed.

On September 24, 1877, the roof and model rooms and contents in the west and north wings of the building were destroyed by fire. About 87,000 models and 600,000 copies of drawings were ruined by fire and water. A full account of this fire was published in the Official Gazette of the Patent Office on October 9, 1877.

Very respectfully,
E. V. SHEPARD, Chief Clerk.

Document V.

CERTIFIED COPY OF BILL OF IN-
JUNCTION AGAINST FORT &
POWELL FOR INFRINGEMENT
OF GIN PATENT.

This paper is now on file in the United States Court House, Savannah, Ga.

To the honorable, the judges of the Circuit Court of the United States for the district of Georgia:

Humbly complaining shew unto your honors your orators, Eli Whitney, of the State of Connecticut, and Catharine Miller, and Lemuel Kollock, executors of the last will and testament of Phineas Miller, deceased, all citizens of the United States: That by virtue of an act of the Congress of the United States entitled an act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose, passed the twenty-first day of February, in the year of our Lord, one thousand, seven hundred and ninety-three, letters patent were issued in the name of the United States, and bearing test by the president, thereof, on the fourteenth day of February, in the year of our Lord, one thousand, seven hundred and ninety-four, whereby the United States of America did grant unto your orator, Eli Whitney, his heirs, administrators, and assigns, for the term of fourteen years, from the sixth of November, in the year of our Lord, one thousand, seven hundred and ninety-three, the full and exclusive right, and liberty of making, constructing, using and vending to others to be used, a certain new and useful improvement in the art of ginning cotton, which improvement had not before been known or used, whereof your orator, Eli Whitney, was the original inventor, the principle of which invention consists in the art of extracting the cotton from the seed by means of teeth composed of metal, which teeth are attached to a cylinder, on which they revolve, passing through grooves, or openings of a breastwork too narrow to admit the seed, through which grooves the cotton is carried by the teeth and after passing through is brushed off from the teeth by a clearer or brush; asby the

UNITED STATES OF AMERICA, }
SOUTHERN DISTRICT OF GEORGIA, }
SACRER DIVISION } SS.

August 1, 1808, before S. S. Williams, Deputy Clerk of the
Court of the United States of America, for the Southern District of
Georgia, do hereby certify that the Writing annexed to this certificate
is a true copy
of the ^s respective original now on file, and remaining on record in my office,
To wit: *Recd. for inspection of Mr. Whaley and Prentiss
of Henry Whaley, Deacon, to your Htho Job and
John Will, Friends of John Will and Htho Job and
Decr. of inspection. December 19th 1808*



IN WITNESS WHEREOF, I have caused the seal of the said Court to be hereunto affixed, at the City of Atlanta of in the Southern District of Georgia, this 18 day of July, in the year of our Lord, one thousand eight hundred and ninety eleven and of the Independence of the United States, the one hundred and twenty second year.

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not inventor, the principle of which invention consists in the art of extracting the cotton from the seed by means of teeth arranged in such a manner as...

FIG. VIII.

Certification of Bill of Injection by Deputy Clerk U. S. Court, showing few lines of document attached

said letters patent under the great seal of the United States, bearing date the said fourteenth day of March, seventeen hundred and ninety-four, (a copy whereof is exhibit A, which your orator prays may be taken a part of this bill) will more fully appear.

And your orators further shew that on the twenty-first day-day of June, in the year of our Lord, one thousand, seven hundred and ninety-four, one of your orators, Eli Whitney, being so possessed of, and entitled, to the exclusive right above set forth, by indenture bearing date on the day last mentioned, by virtue of the fourth section of the before mentioned act, did assign and transfer unto Phineas Miller, one moiety, or half part, of the title and interest in said invention, which he, the said Eli Whitney had acquired and held, under, and by virtue of the said Letters Patent, as by the said indenture, executed, and recorded in the office of the Secretary of State, in pursuance of said act, (a copy whereof is exhibit B) will more fully appear. And your orators further shew, that, by articles of copartnership, duly made and executed, by and between Eli Whitney, one of your orators, and Phineas Miller, (who hath lately departed this life) it was, on the twenty-first day of June, in the year last aforesaid agreed that all concerns which in any way respected the employment or disposal, of the invention and improvement in ginning cotton above set forth, should be conducted under the firm of Miller & Whitney, and that by virtue of the said deed of assignment and articles of copartnership and of the aforesaid statute the said Phineas Miller became interested with a joint interest in the invention and in the exclusive right thereto attached by the said Letters Patent, and that by virtue thereof, the said Phineas Miller, in his life time, was, and your orators, executors of the last will, and testament, of the said Phineas, since his death, now are placed on the same footing with the said Eli Whitney, the original inventor, both as to right and responsibility. And your orators further shew to your honors, that by the act of the United States, above stated, and also by an act passed the seventeenth day of April, in the year eighteen hundred, entitled an act to extend the privilege of obtaining patents for useful discoveries and inventions to certain persons therein mentioned, and to enlarge and define the penalties for violating the rights of patentees, it is made and declared unlawful where a

patent shall be or shall have been granted, pursuant to either of the said acts, for any person without the consent of the patentee, his or her executors, administrators or assigns first obtained in writing to make, devise, use or sell, the thing whereof the exclusive right is secured by such patent. And your orators further shew, that, by virtue of the aforesaid statutes, and by the sanction and authority of the aforesaid Letters Patent, Eli Whitney, one of your orators, and the said Phineas Miller, in his life time, were, and your orators, that is to say, the said Eli Whitney survivor, as aforesaid, and the said Catharine Miller and Lemuel Kollack, executors of the said Phineas Miller, now are and continue to be invested with and entitled unto, and ought of right to have hold and peacefully enjoy the exclusive right and privilege of making, devising, using and selling to others to be used, gins constructed on the plan and according to the principles of the said invention for the term of years limited by the said patent, according to the true intent and meaning of the acts of Congress and Letters Patent, as above stated. And your orators charge that no machine of a similar construction to the one for which the said Eli Whitney hath obtained a patent was ever invented, or used in the United States, Georgia, or elsewhere for ginning cotton, until invented by the said Eli Whitney; on the contrary, the only mode, method and device, used in Georgia, or elsewhere for extracting green seed as well as black seed cotton from the seed, was by roller gins, which are entire dissimilar in their principles from the present machine of your orator. And your orators do further shew to your honors, and expressly charge that Arthur Fort and John Powell, who are citizens of the State of Georgia, not regarding the right thus constitutionally and legally vested in the said Eli Whitney and Phineas Miller, their representatives and assigns have procured, and since the seventeenth day of April, in the year eighteen hundred, have used and still continue to use a machine for ginning or cleaning cotton, upon the principle of the said improvement and invention, that is to say, a machine-machine for extracting cotton from the seed by means of metallic teeth or points, attached to, and revolving on a cylinder and passing through grooves or openings of a breastwork, too narrow to admit the seed, through which grooves the

cotton is carried by the teeth, and after passing through is brushed off from the teeth by a cleaner or brush, without the license, assent, or permission of the said Eli Whitney, or of the said Phineas Miller, in his life time, or of the executors of the said Phineas Miller, since his death. And your orators further shew that your orator, Eli Whitney, and the said Phineas Miller, in his life time, have often applied to the said Arthur Fort and John Powell in a friendly manner, soliciting them to desist from the use of the said machine, and the infraction of the said exclusive right, not having obtained a license, or permission from your orator and the said Phineas to use the same. And your orator and the said Phineas well hoped that the said Arthur Fort and John Powell would have ceased to use the said machine and have made compensation to the said patentees for the violation of their patent right, as in justice and equity they ought to have done.

But now so it is, may it please your honors, that the said Arthur Fort and John Powell, combining and confederating with divers other persons, yet unknown to your orators, whose names when discovered your orators pray may be inserted in this bill, with apt words to charge them, designing and intending to oppose the constitution of the United States, as well as the government and laws established and enacted under its sanction, and for this purpose designing by their popular but evil example to induce and promote a general violation of their exclusive right among the citizens of the State of Georgia and thereby deprive the patentees of its advantages, have by some fraudulent, surreptitious means, unknown to your orators, obtained, and do continually without any license or permission from the patentees, use the invention for separating cotton from the seed above set forth, whereof the exclusive right is vested in your orators, as aforesaid. And that the said Arthur Fort and John Powell do absolutely refuse to discontinue the use thereof, at some times pretending that the machine above described is not a useful invention, that, for this reason the patent was fraudulently obtained, and ought to be disregarded in a court of equity. Whereas, your orators do allege and charge, that the invention and improvement aforesaid, was the first and original method invented for separating the species which is termed the green seed cotton from the seed, that until this invention

was brought into use the species of cotton was not, and could not be extensively cultivated for want of a mode of separating it from the seed, and that the success of this invention alone has induced and promoted the culture of that staple, by which the citizens of the Southern States, have within a few years past been greatly enriched. And at other times the said defendants and their confederates pretend, that the said machine was not originally invented by the said Eli Whitney, but was in use before the said Letters Patent were issued. Whereas, the fact is, and your orators expressly charge, that the principle of the said machine, and the mode of application above stated, and particularly defined in the description annexed to the said Letters Patent, were originally invented and discovered by the said Eli Whitney. At other times they pretend that the said Eli Whitney, one of your orators, obtained the said Letters Patent for the discovery of some other person, whereas, your orators allege that the contrary is true and that the said defendants and their confederates have not, with all their exertions and researches to injure your orators, been able to produce any discovery which is materially similar even in principle, and much less in the application of principle to the purpose and use designated by the said Letters Patent. And it is also pretended by the said defendants and their confederates that the machine used by them contains in it an improvement in the principle of the machine invented by the said Eli Whitney, of which your orators have the exclusive right, that is to say teeth cut into circular pieces of metal, instead of teeth made from wire, inserted into the cylinder. Whereas your orators charge that if such alteration is an improvement in the principle yet it does not entitle the inventor of such improvement nor any other person to use the machine originally invented. And whereas also your orators charge that the alteration above stated makes no alteration or improvement in the principle, but is merely a change in the form of that part of the machine, and that in the operation of the machine the effects of the points or teeth indented into solid pieces of metal is precisely the same as that of teeth composed of wire and inserted in the cylinder. And the said defendants and their confederates set

up various pretenses unjustly and unlawfully to use said invention, in violation of the patent right of your orators, and at the same time to destroy the benefits which otherwise would result from the same. All which actions and doings and pretenses of the said Arthur Fort and John Powell and their confederates are contrary to equity and good conscience and tend to the manifest injury of your orators. In consideration wherof and for as much as your orators cannot restrain the said Arthur Fort, and John Powell from the unjust use of the said invention without the aid and interference of the equitable jurisdiction of this honorable court. And as the said Arthur Fort and John Powell use the said machine in a secret and clandestine manner so that your orator cannot have the benefit of a full and effectual remedy at common law against the said Arthur Fort and John Powell and their confederates for want of proof of such use and infringement, and of the actual injury sustained thereby, to the end therefore that the said Arthur Fort and John Powell and their confederates when discovered, may make full, true and perfect answers upon their several and corporal oaths, to all and singular the matters herein alleged, as fully and particularly as if the same were herein again repeated, and they thereunto interrogated, and more especially that the said Arthur Fort and John Powell may respectively answer, whether they have not used a machine constructed upon the principle above set forth, for the purpose of separating cotton from the seed, that is to say, a machine for extracting cotton from the seed, by means of metallic teeth, or points, attached to and revolving on a cylinder, and passing through grooves or openings of a breastwork, too narrow to admit the seed, through which grooves the cotton is carried by the teeth and after passing through is brushed off from the teeth by a cleaner or brush, at which period they commenced the use of such machine, and whether they continue to use the same. What quantity of cotton he has ginned therewith, of how many circle of teeth the said gin consisted, whether it is impelled by water, or by what other way. And the said Arthur Fort and John Powell may be restrained from the further use of said invention.

May it please your honors to grant to your orators the United States writ of subpoena to be directed to the said Arthur Fort and John Powell, com-

manding them, under a certain penalty, therein to be inserted, personally to appear before the honorable the judges of the Circuit Court of the United States for the district of Georgia, at Savannah, on the sixth day of May next, then and there to answer the premises, and to stand to, and abide such order and decree therein, as to the said judges shall seem agreeable to equity and good conscience. And may it also please your honors to grant unto your orators a writ of injunction to be directed to the said Arthur Fort and John Powell, their agents, workmen and servants, commanding and enjoining them and each of them under a penalty therein to be specified, to be levied on their goods and chattels-chattels, lands and tenements from henceforth altogether to desist from using the said machine and invention. And your orators shall ever pray, etc.

JOHN Y. NOEL,
of Counsel with Compt.

Eli Whitney being duly sworn maketh oath that the matters of fact stated in this, his bill, as far as concern his own act and deed are true of his own knowledge and that what relates to the act and deed of any other person or persons, he believes to be true.

ELI WHITNEY.

Sworn to before me this 31st January, 1805.

R. M. STITES, Clerk.

ENDORSEMENT.

District of Georgia, Circuit Court of the United States. In Equity. Eli Whitney and the Executors of Phineas Miller, deceased, vs. Arthur Fort and John Powell, esquires. Bill of injunction.

Filed 16th of March, 1804. Noel.

Decree for perpetual injunction vs. Powell, 13th May, 1806.

Decree for same vs. Arthur Fort, 19th December, 1806. Stites, Clerk.

FORT'S ANSWER.

IN THE SIXTH CIRCUIT COURT. BILL FOR INJUNCTION.

Eli Whitney and the Executors of Phineas Miller, Complainants, and Arthur Fort and John Powell, Defendants.

The answer of Arthur Fort, one of the defendants to the bill of complaint of Eli Whitney and the Executors of Phineas Miller, complainants.

The defendant, Arthur Fort, saving and reserving to himself now and at all times hereafter all and all manner of benefit of and advantage of exceptions to the manifold uncertainties and imperfections in the complainant's said bill contained, for answer thereunto, or unto so much thereof as materially concerns this defendant to make answer unto, he answereth and saith, That he believeth it to be true that the said Eli Whitney did obtain Letters Patent for the right of making, using, constructing and vending to others to be used a certain machine purporting to be a new and useful improvement in the art of ginning cotton, and that he did transfer one moiety of his right thereunto unto the said Phineas Miller, as stated in the bill of complaint of the said complainants; and also that an act was passed on the 17th day of April, 1800, to the intent and purport expressed in the said bill of complaint, but this defendant denies it to be true that the machine pretended to be invented by the said Eli Whitney was a useful one because as he hath been informed the cotton ginned or cleaned thereby was materially injured in its staple and texture. This defendant admits that it doth not come within his knowledge that any machine on similar principles was used in Georgia or elsewhere for the ginning of cotton, but he hath been informed and doth verily believe that a machine constructed on similar principles, though somewhat different in its formation had been known and in use in Europe previous to the time of the said Eli Whitney's obtaining his patent, although it might have been applied to a different purpose than that of ginning cotton.

This defendant also admits that he did not know of any other mode of ginning cotton-cotton used in Georgia previous to the time of obtaining the said patent, other than that of rollers. This defendant admits that he hath since the 17th of April, 1800, and a considerable time previous thereto, used a machine for the purpose of ginning cotton consisting of circular metallic plates fastened on a square iron axis, with teeth, cut in the periphery of the plates, and a brush to detach the cotton from the teeth, but he denies that the same is in form similar to that of the Patentee, according to the best of his information, having never seen one of the machines pretend-

ed to be invented by Eli Whitney, but whether there is any or what similarity in principle, he cannot say—because having never seen the machine of the Patentee and not being sufficiently skilled in mechanics he cannot be positive. The defendant denies that he hath been requested to desist to use his machine otherwise than by having been sued and harassed and perplexed by the complainants in an action on the common law side of this honorable Court, and by the present bill of complaint on the equity side thereof. This defendant denies that his example has induced a general violation of the rights of the patentees; on the contrary he is inclined to believe that if any infringement has been made on the rights of the patentees that it has been occasioned by the avarice of themselves and agents or some of them. This defendant hath already answered and said that he does not believe the machine for which the patent was obtained is a useful one, and that he doth believe that a machine constructed on similar principles was known in Europe previous to the time of obtaining the said patent. And this defendant also saith, That teeth cut in circular metallic plates is in his opinion, a very considerable improvement. This defendant denies that he hath used his machine in a secret or clandestine manner, but that on the contrary he has never refused any persons the liberty of inspecting or examining his machines, and that his gin-house at all times at which his machine was at work hath been open for the admission of such persons as had business therein or chose to enterthereinto. That the complainants might have well had their action if to any such they were entitled (which this defendant doth not admit) against him at common law, and that in truth the said Eli Whitney, and the said Phineas Miller in his life time instituted a suit on the common law side of this honorable court for an infringement of their patent, but which they failed to prosecute. That he hath used a machine for cleaning cotton constructed as he hath already described for seven years or upwards, but he cannot say for the reasons already mentioned, and also on account of not seeing the Letters Patent, whether the said machine used by him is constructed on the same principles as that of the Patentees, and this defendant continues to use the same. This defendant is unable to say what quantity of cotton he hath ginned with-

his machine, as he did not keep any account thereof. That his machine consists of forty-six circles of teeth, and is impelled by water. And this defendant denies all and all manner of confederacy and combination where-with he stands charged in and by the said bill of complaint, without that, that there is any other matter or thing material or necessary for this defendant to make answer unto, and not herein and hereby well and sufficiently answered unto confessed or avoided, traversed or denied, is true. All of which matters and things this defendant is ready to aver and prove as this honorable court shall direct and award, and humbly prays to be hence dismissed, with his reasonable costs in this behalf most wrongfully sustained.

J. HAMILL.
Sol. for Deft.

Sixth Circuit Court, District of Georgia.

Arthur Fort being duly sworn maketh oath and saith, that what is contained in the foregoing answer as far as concerns his own act and deed is true of his own knowledge, and that what related to the act and deed of any other person or persons he believes to be true.

ARTHUR FORT.

Subscribed by the above named Arthur Fort in my presence and sworn to before me this 17th day of December, 1805.

R. M. STITES, Clerk.

ENDORSEMENT.

Sixth Circuit Court. E. Whitney and Executors of Phineas Miller vs. A. Fort and J. Powell. Answer of A. Fort, Filed 19th December, 1805. Stites, Clerk. Hamill, Solicitor.

POWELL'S ANSWER.

IN THE CIRCUIT COURT OF THE UNITED STATES, DISTRICT OF GEORGIA.

Eli Whitney, surviving copartner and executors of Phineas Miller, complainants, vs. John Powell, defendant. In Equity.

The answer of John Powell, defendant in the above case. This defendant saving and reserving to himself all and all manner of exceptions to the manifold errors and imperfections in the bill of complaint of said complainants, for answer thereunto or un'o so much thereof, as he is advised is material for him to make answer unto, he answereth and saith, That he admits that a patent was obtained by Eli Whitney, one of the complainants, for the invention of a cotton gin, or a ma-

chine for cleansing and separating cotton from its seeds, at the time and in the manner set forth in the bill of said complainants, and he admits it to be true that he hath heard and believes the said Eli Whitney did afterwards transfer and assign to Phineas Miller, now deceased, a moiety of the said invention, and the rights attached thereto, under the patent aforesaid, and he admits it also to be true that, said Phineas Miller did by his last will and testament nominate and appoint Catharine Miller and Lemuel Kollock, executors thereof. This defendant also admits it to be true that he does hold, use and occupy a machine or gin for cleaning cotton, commonly called a saw gin; that the said gin has a wooden frame, and a breast, made of pieces or straps of iron, placed at such a distance from each other, as to admit the teeth of circular metallic rows to pass through the grooves of said breast, that there is a revolving cylinder on which at regular distances from each other are placed circular metallic iron plates, containing teeth, all cut and inclined one way; these teeth pass when revolving between the straps or pieces of iron affixed to, or forming the breast, and separate the cotton placed within the hopper from its seeds; that it contains a brush made of the bristles of hogs, affixed to a cylinder revolving in a contrary direction to the one containing the circular metallic plates or saws, and detaches the clean cotton from the saws or teeth. The machine is put in motion by a whirl fastened to the axis of the cylinder first mentioned, round which is a band and propelled by horse. This defendant denies all unlawful combination with which he stands charged without that, there is any other matter or thing material or necessary for this defendant to make answer unto and not herein and hereby well and sufficiently answered unto, confessed or avoided, traversed or denied is true. S. JONES,
Solicitor for Defendant.

Jefferson County, ss.

John Powell of Louisville, practitioner of physic, being duly sworn maketh oath and saith that the facts set forth in his foregoing answer is true, so far as the same concerns his own act and deed, and what rests on

the knowledge of others, he believes to be true. JNO. POWELL.

Sworn to and subscribed before me 1st May, 1805.

M. SHELMAN, J. J. Ct.
ENDORSEMENT.

Eli Whitney and Execut^os, Miller vs. A. Fort and J. Powell. Answer of John Powell. Filed 6th May, 1805. Stites, Clerk.

Arthur Fort vs. Miller and Whitney, Case 9.

And the said Arthur Fort by Robert Watkins, his attorney, comes and defends the wrong and injury, when &c., and saith that he is not guilty of he premises above charged on him against the form of the statute aforesaid as the said Phineas and Eli have above against him complained and of this he puts himself upon the country, &c.

WATKINS,
Defendants' Attorney.
R. M. STITES, Clerk.

9. A. Fort ads. Miller, &c. Plea filed.

Circuit Court, Georgia.

DECREE FOR INJUNCTION.

Eli Whitney, et al, vs. Arthur Fort. Bill for injunction.

This cause came on to be heard this 19th day of December, eighteen hundred and six, before the Honorable Wm. Johnson and the Honorable Wm. Stephens, on bill, answer, replication, testimony and exhibits, in behalf of the complainants.

Whereupon it is ordered, adjudged and decreed that the injunction prayed for by the complainants in their bill be granted them and that the same be made perpetual, and that the defendant pay the costs of this bill.

Dated at Louisville, this 19th day of December, A. D., 1806, and in the 31st year of American Independence.

WILLIAM JOHNSON, JR.
WM. STEPHENS.

ENDORSEMENT.

Georgia 6th Circuit Court. Whitney, et al, vs. Arthur Fort. Decree for Perpetual Injunction 19th December, 1806. Ent. page 13 and 14. STITES, Clerk.

NOTE. The words in the various documents which are repeated at intervals, thus-thus, are supposed to be the words which were formerly repeated at the bottom of the page. The clerk in making the certified copy must have copied these words verbatim.

D. A. T.

Document VI

CERTIFIED COPY OF HODGEN HOLMES' PATENT, 1796.

This paper is now on file in the United States Court House, Savannah, Ga.

EXEMPLIFICATION OF THE PATENT OF HODGEN HOLMES.

The United States of America. To all to whom these Letters Patent shall come:

Whereas, Hodgen Holmes, a citizen of the State of Georgia, in the United States, hath alleged that he has invented a new and useful improvement, to-wit, new machinery called the cotton gin, which improvement has not been known, or used before his application, has made oath that he does verily believe that he is the true inventor or discoverer of the said improvement, has paid into the Treasury of the United States, the sum of thirty dollars, delivered a receipt for the same, and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose: These are therefore to grant according to law, to the said Hodgen Holmes, his heirs, administrators, or assigns, for the term of fourteen years, from the nineteenth day of the month of April last past, the full and exclusive right and liberty of making, constructing, using and vending to others to be used the said improvement, a description whereof is given in the words of the said Hodgen Holmes himself in the schedule hereto annexed and is made a part of these presents.

In testimony whereof, I have caused these letters to be made patent and the seal of the United States to be hereunto affixed. Given under my hand at the city of Philadelphia, this twelfth day of May in the year of our Lord, one thousand, seven hundred and ninety-six, and of the Independence of the United States of America the twentieth.

By the President,
GEORGE WASHINGTON,
TIMOTHY PICKERING,
(L. S.) Secretary of State.

City of Philadelphia, to-wit:

I do hereby certify that the foregoing Letters Patent were delivered to me, on the twelfth day of May, in the year of our Lord, one thousand, seven hundred and ninety-six, to be examined, that I have examined the same,

UNITED STATES OF AMERICA,
Boston DIVISION. ss.
SOUTHERN DISTRICT OF GEORGIA

Circuit Court of the United States of America, for the Southern District of Georgia, do hereby certify that the Writing annexed to this certificate, is a true copy of the respective original now on file, and remaining on record in my office, To wit: *Brevification of the Patent of Hodges Holmes, dated May 12, 1796.*



IN WITNESS WHEREOF, I have caused the seal of the said Court to be hereunto affixed, at the City of *Atlanta*, in the Southern District of Georgia, this *18th* day of *May*, in the year of our Lord, one thousand eight hundred and ninety *1890*, and of the Independence of the United States, the one hundred and twenty *second* *year*. *A. H. G. G. Clerk*

THE ORIGINAL AND ONE ANOTHER AND NO OTHER COPIES OF THE CERTIFICATE HERETO ENCLOSED AND IS MADE A PART OF THOSE PAPERS.

IN WITNESS WHEREOF, I have caused these letters to be made

FIG. IX.

Certification of Holmes' Patent by Deputy Clerk U. S Court, showing few lines of document attached.

and find them conformable to law, and I do hereby return the same to the Secretary of State within fifteen days from the date aforesaid, to-wit; on this twelfth day of May, in the year aforesaid.

CHARLES LEE,
Attorney General.

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Hodgen Holmes himself of an improvement, to-wit: new machinery called the cotton gin.

EXPLANATION OF THE WHOLE MACHINERY.

This machinery for cleaning cotton from the seed, can be used in the following manner, viz: The whole machine (standing on the floor) is made of wood, six feet, six inches wide, five feet long and five feet high, by putting this machine in motion for use of the before mentioned purpose, is to be done by the following direction:

The cylinder from eight to fourteen inches in diameter, and six feet long with one row of teeth, to one inch, which runs on two iron gudgeons, the feeder from eight to twelve inches diameter, with two rows of wires of one inch, and six feet long and runs on two iron gudgeons, the brush from seven to twelve inches in diameter, and six feet long, with two iron gudgeons to each cylinder, from three-quarters of an inch to one inch thick.

HODGEN HOLMES.
Teste, W. Urquhart. Seaborn Jones.

Department of State, to-wit:

I hereby certify that the foregoing Letters Patent from the United States to Hodgen Holmes are a true copy of the original on record in this Department.

Given under my hand and seal of office the twenty-first day of October, 1797.

(Seal.) TIMOTHY PICKERING.

Document VII.

LETTER FROM PHINEAS MILLER,
OF MULBERRY GROVE, GA., TO
HIS PARTNER, ELI WHITNEY,
NEW HAVEN, CONN., FEBRUARY
15, 1797.

This is copied from "Correspondence of Eli Whi'ney, relative to the Invention of the Cotton Gin."

By M. B. Hammond in The American Historical Review, Oct., 1897.

Mulberry Grove, Feb. 15th, 1797.

DEAR WHITNEY: The mystery of your silence is unravelled and I am much rejoiced—during my absence to the upper country your letters of 17 and 27 Nov., the 15th and 20th of Dec. and 6th Jan. came to hand. Not one of these reached here until the latter part of January, the letters by Bontacée had carelessly been retained by the person who brought them.

Your advice respecting the mistake most probably committed by the Rhode Island Factory is agreeable. My anxieties on this subject are kept awake by the large sum we have at stake. You are almost surprised that my confidence should be shaken; the people here are surprised that it should not be entirely destroyed.

I think your advice good respecting keeping a supply of cotton at New Haven and New York. I have only been prevented from pinching necessities doing this heretofore, and shall proceed as much as my funds will possibly admit this winter. I have indeed endeavored to extend my credit to the purchase of 40 or 50 m. weight of cotton at the low price at which it is to be had at present—viz: \$3.50, and for cash '3 per hundred. I have also set on foot in common with Mr. Rupel a traffic over the mountains to the distance of three hundred miles by land, which I think will enable us to vend a few thousand weight of cotton very profitably.

Fortunate have we been in one instance among so small a number of misfortunes in saving our cotton and samples of cotton at New York. The repeated disappointments which have yet prevented your departure for England have become so frequent that they almost cease to create surprise, and yet the evil arising from the detention is by no means diminished. I really think that it will not be best that Nightingale should engage with us until some change in our affairs can be brought about. We require at present his assistance and I should wish to make him the most liberal recompense without subjecting him to our misfortunes, in addition to his own.

It will be best to take the deposition of Goodrich and Stebbins on the subject of ratchet wheels which may hereafter be rendered useful. I fear it cannot be had in time for our Court which will sit the last of April. The name of the Patentee for the surreptitious patent I think is Robert Holmes.

The names of our defendants, Kennedy and Parker and Edward Lyons. I expected you would have procured and sent on the copy of the patent which was to be set aside. I shall now write for it myself. The order which was given to Adams for the saw mill crank was sufficiently correct. I find by his letter that he understood it exactly as was intended—but the difficulty arose from my omitting to explain the mode of our applying these cranks which did not appear to me necessary. It is now too late to make them—others are procured.

With best wishes for your early departure and with the regards of our family, I am truly your friend,

PHINS. MILLER.

Document VIII.

LETTER FROM ELI WHITNEY,
NEW HAVEN, CONN., TO JOSIAH
STEBBINS, NEW MILFORD, DISTRICT
OF MAINE, OCT., 15, 1803.

This is copied from "Hammond's Correspondence," above cited.

New Haven, 15th Oct., 1803.

DEAR STEBBINS: The fates have decreed that I shall be perpetually on the wing and wild goose like, spend my summers in the North and at the approach of winter shape my course for the regions of the South. But I am an unfortunate goose. Instead of sumptuously touring thro' the aerial regions with a select corps of faithful companions, I must solely wade thro' the mud and dirt a solitary traveller.

While on my tour the last winter I wrote you several letters to several of which I have recd. no answer. I wrote you a letter from the city of Washington almost a year since, in which I gave you some account of Thos. Paine. I feel a little anxious lest this letter may have miscarried. I wrote you a so last spring from Savannah (if I recollect rightly) requesting some information relative to my invention of the cotton machine. I should be gratified to know whether you recd. these letters or not.

I shall start from here in ten days for South Carolina in order to be there at the meeting of the legislature of that State and expect to return in January or February. A multiplicity of avocations has prevented my writing you for some time past and it has been so long delayed that I fear I shall not be able to get an answer from you before I commence my journey.

I have still a host of the most unprincipled scoundrels to combat in the Southern States. I have not now leisure to go into detail but I want to inquire of you if you cannot give your deposition to the following import, (viz:)

I, Jos. Stebbins, &c., &c., do testify and declare that I have been intimately acquainted with Eli Whitney, originally of Massachusetts, but now of New Haven in the State of Connecticut, for more than fourteen years. That the said Whitney communicated to me his discovery and invention of a machine for clearing cotton from its seed by means of teeth passing between bars or ribs of a part which he called a breastwork, more than six months before he obtained a patent for said invention. That I saw sd. Whitney almost every day thro' the summer and autumn of the year 1793, at which time I was a resident graduate in Yale College. That we had many and frequent conversations on the subject of mechanics and natural philosophy in general and particularly with reference to his said invention. That I transcribed his specifications or description of said machine several times and that he conferred with me relative to the various parts of said description. And I well remember that said Whitney repeatedly told me that he originally contemplated making a whole row of teeth from one plate or piece of metal such as tin plate or sheet iron and that he afterwards had recourse to wires to make the teeth from necessity, not having it in his power at that time to procure either tin or sheet iron in Georgia. That in the first draft of his specification he had mentioned sheet iron as a material out of which the teeth might be made but we concluded it was wholly unnecessary as it did in no way affect the principle of the machine being only one of a great variety of methods in which the teeth might be made and it was struck out. I also recollect that the said Whitney previous to writing a description of his in-

vention had contemplated a variety of methods of making each of the several parts of the machine but it was thought to be wholly immaterial that they should be mentioned in the description, etc., etc.

I hope you will be able to call to mind the circumstances mentioned above, not that they would be of any importance with an enlightened upright judge. The circumstance of making the teeth of sheet iron is really of no account as it regards the principle and my right; but as that is the method in which the trespassers make the machines, they lay great stress upon it, and if I can but prove the truth about it, it will stop their mouth on this subject. I have a set of the most depraved villains to combat and I might almost as well go to hell in search of happiness as apply to a Georgia Court for justice.

I fear that I have delayed writing to you so long that I cannot get an answer from you before I leave this, which will be as early as the 25th of this month. But I would thank you to lose no time in writing to me and direct to me at Columbia South Carolina—whatever your recollection will enable you to testify to, relative to the early history of my invention. I wish you to forward to me a deposition signed and sworn to. I am sensible such a deposition will not be recd. in a court of law, there being no commission taken out to take the testimony but it will be very useful to me in some important arrangements which I wish to make. I hope it will be convenient for you to write me soon after you receive this as any delay will deprive me of any benefit which I may derive from your deposition.

I shall not make any considerable stop before I reach Columbia in So. Carolina, which place I do not now expect to leave before the 20th of December. Write me as much and often as you can. I shall have more leisure to write you while traveling than I have had the summer past and you may expect to hear from me occasionally.

My armoury here has got to be a regular establishment and progresses tolerably well, and I flatter myself I shall make something handsome by the undertaking. My works have considerably excited the public curiosity and are visited by most people who travel thro' this country, this however is not so flattering to my vanity that I do not wish to be less thronged with spectators. It would really give much sincere

pleasure and satisfaction to see you here and shew what I have been doing for three or four years past. Can you not visit us next summer?

With best and most affectionate regards to Laura and ardent wishes for your (own) happiness, I am, have been and (shall be)

Your sincere friend,
E. WHITNEY.
Josiah Stebbins, Esq.

Document IX.

ABSTRACT OF LEGISLATIVE RECORDS, ON FILE IN STATE HOUSE COLUMBIA, S. C., RELATING TO THE PURCHASE BY THE STATE OF SOUTH CAROLINA, OF THE PATENT RIGHTS TO THE WHITNEY GIN.

In the Senate, Dec. 1, 1801, Major John Turner presented a petition from "Sundry Inhabitants of Richland County," praying that the State purchase for the free use of its citizens, the patent right to the machine known as the "saw gin."

In the Senate Dec. 7, 1801, Dr. Blythe of All Saints, presented a petition to the same effect from "Sundry Inhabitants of Kershaw County." The petitions were referred to a joint committee from House and Senate, composed on the part of the Senate:

Major John Turner of Richland County, Col. Joseph Calhoun of Abbeville County, Capt. Arthur Simpkins of Edgefield County, and on the part of the House:

[Mr. Taylor, Mr. Peter Porcher, Jr., Dr. Hanscome, General Robt. Anderson, Mr. John Richardson.

The Senate committee reported Dec. 12, 1801:

That they have met a committee from the House of Representatives for the purpose appointed and "they have taken into their joint consideration the matters contained in said memorials, and have had full conference with Mr. Eli Whitney, one of the co-partners of Miller & Whitney, who claim the said patent for the exclusive use of the saw gin for cleaning the staple of cotton from the seed within the United States. That the said Eli Whitney for himself and the concern of Miller & Whitney has proposed as the lowest sum they will be willing to take for the patent right within the limit of the State the sum of \$50,000. \$20,000 to be paid as

soon as the said Miller & Whitney shall make a legal transfer of the same to the State or its agent. \$15,000 on Sept. 1st and \$15,000 on the 18th day of Sept., which will be in the year 1803."

"That taking into consideration the immense advantages which have resulted, and which will result to this State from this most ingenious and useful discovery, as well as the sacrifices which the inventor has made in pursuing and perfecting this great undertaking, as well also as the certainty that if the patentees pursue their right against individuals, a much greater sum would be likely to accrue to them, perhaps four times the amount at present, without taking into view the certain increase which will be made to the number of machines now in use—adding also to these considerations the great propriety of preventing the immense expense of litigation to our citizens on this subject—and that it is becoming and dignified in the State to take by the hand, encourage and foster by its liberty the useful arts.

"They therefore resolved, that leave be given to bring in a bill for the purpose of purchasing from Messrs. Miller & Whitney, their patent right to the making, using and vending the saw machine within the limits of this State and for compensating them for the same.

"They further recommend that a tax should be laid on the same machines now in the State to the amount of..... for every saw or round or row of teeth in the said machines for the purpose of defraying the second installment of the aforesaid purchase to be made; and that it be considered that the tax upon these machines be pledged for the purpose of reimbursing the State for the purchase to be made aforesaid."

ORDERED

that the report be considered on Monday next.

On Dec. 14, 1801, the Senate agreed to the committee report and returned same to committee to bring in a bill in conformity thereto. This bill was brought in and passed Dec. 16, 1801, and sent to the House.

The bill provided that Miller & Whitney should make a legal transfer of the right and title to his patent for the State of South Carolina, and that they should refund to citizens of the State all sums which they had collected therefrom for licenses, and that they should deliver "within a reasonable time" at the State House, two improved models of the gin.

On making the legal transfer, Mr. Paul Hamilton, Comptroller General of the State, made his warrant on the treasury for the cash payment, \$20,000.

General Charles Cotesworth Pinckney, of Charleston, was a member of this Senate. He was one of Whitney's early friends in the South. Another member of this Senate was Mr. Henry Dana Ward, from Orangeburg County. He had been a class-mate of Whitney's at Yale College.

In the Senate Nov. 27, 1802, Capt. Arthur Simpkins of Edgefield County, presented a petition from William Foster, Taylor, praying that the State refund him the money, \$180, which he had paid Miller & Whitney as a license to operate a saw gin. This petition was referred to the same committee that reported on the purchase at the preceding session, with instructions to confer with the Comptroller. They report Dec. 15, 1802, that the Comptroller had not made the second payment on the gin patent, and that he held the money subject to the action of the legislature. The petition was granted, and \$180 refunded Mr. Taylor.

The regular House committee appointed to examine the Comptroller's annual report, say in their report Dec. 13, 1802, "on the subject of the saw gin that Messrs. Miller & Whitney have not complied with their contract relating thereto, they highly approve the conduct of the Comptroller in suspending the payment of the second warrant and recommend that he be directed to take measures to compel Messrs. Miller & Whitney to refund the money received by them on account of the saw gin."

On the same date the Senate committee report:

"Resolved, that the legislature approve of the conduct of the Comptroller, that he be also directed to institute such suit against the said Miller & Whitney, as may be necessary to try their right to the invention of the machine." The members of this committee were Capt. John Ward of Colleton County, Major Charles Goodwin of Winton and Capt. Sam Warren of San tee.

When the Comptroller's annual report came to the House again, Dec. 1, 1803, it mentioned the fact that the money was still withheld from Miller & Whitney, and that suits had been instituted against them. This part of the report was referred to the original saw gin committee. They did not report during that session.

At the next session, Dec. 6, 1804, Eli Whitney presented a petition to both House and Senate: "Praying that the State would receive two models of the saw gin and comply with their contract in the purchase of the petitioners' patent right to the same." This was referred to the same saw gin committee.

On Dec. 15, 1804, the Senate received the report of the joint committee as follows:

"On the most mature deliberation they are of opinion that Miller & Whitney, from whom the State of South Carolina purchased the patent right for using the saw gin within this State have used reasonable diligence to refund the money and notes received by them from divers citizens and as from several unforeseen occurrences the said Miller & Whitney have heretofore been prevented from refunding the same. They therefore, recommend that the money and notes aforesaid, be deposited with the Comptroller General, to be paid over on demand to the several persons from whom the same have been received upon their delivery of the license for which the said notes of hand were given and said monies paid to the Comptroller General, that he be directed to hold the said licenses subject to the order of the said Whitney; that the excellent and highly improved models now offered by the said Whitney be received in full satisfaction of the stipulations of the contract between the State and Miller & Whitney, relative to the same; and that the suit commenced by the State against the said Miller & Whitney be discontinued. The joint committee taking every circumstance alleged in the memorial into their serious consideration, further recommend that (as the good faith of this State is pledged for the payment of the purchase of said patent right) the contract be now fulfilled, as in their opinion it ought to be, according to the most strict justice and equity. And although from the documents exhibited by said Whitney to the committee, they are of the opinion that the said Whitney is the true original inventor of the saw gin; yet, in order to guard the citizens from any injury thereafter, the committee recommend that before the remaining balance is paid, the said Whitney be required to give bond and security to the Comptroller General to indemnify each and every citizen of South Carolina against the legal claims of all persons whatsoever, other than the said Miller & Whitney to any pat-

ent or exclusive right to the invention or improvement of the machine for separating cotton from its seeds, commonly called the saw gin, in the form and upon the principle which it is now and has heretofore been used in this State.

On the vote to adopt the report there was a tie vote, 15 to 15. The President of the Senate voted with the regular members, and so he could not break the tie. The report was therefore not adopted.

On Dec. 18, the House of Representatives voted to discontinue the suits against Miller & Whitney, and on 19th, it voted to adopt the committee's report. This was reported to the Senate, and they took another vote resulting in favor of the measure by 14 to 12.

Mr. Whitney signed an indemnity bond on Dec. 27, 1804, to Thomas Lee, then Comptroller General. John Taylor, J. M. Howell and Samuel Green, of Richland County, signed the bond with him. The money was then paid Mr. Whitney in full of the original contract.

Document X.

EXTRACT FROM MESSAGE RELATING TO THE GIN MONOPOLY BY GOVERNOR JAMES JACKSON TO LEGISLATURE OF GEORGIA, NOV. 3, 1800.

* * *

And here I request your attention to the patent gin monopoly under the law of the United States, entitled, "An act to extend the privilege of obtaining patents for useful discoveries and inventions to certain persons therein mentioned and to enlarge and define the penalties for violating the rights of patents."

The operation of this law is the prevention and cramping of genius as it respects cotton machines, a manifest injury to the community and in many respects a cruel extortion on the gin holders. The two important States of Georgia and South Carolina where this article appears to be becoming the principal staple are made tributary to two persons who have obtained the patents and who demand, as I am informed \$100.00 for the mere liberty of using a ginning machine, in the erection of which the patentees do not expend one farthing and which sum, as they now think their right secured, it is in their power in future licenses to raise

to treble that amount from the information given me by a respectable merchant of this town, (Louisville, Ga.) whose letter on that subject is marked No. 6. When Miller & Whitney, the patentees, first distributed the machine of their construction, they reserved the right of property of it and also two-thirds of the net proceeds of the gin, the expenses of working to be joint between the patentees and the ginners, finding however a defect in the law under which their patent was obtained they determined to sell the machines, together with their rights vested in them for \$500.00 and for a license to authorize a person to build and work one at his own expense, \$400.00, but finding, as I suppose, that the defect of the law was generally understood and that they could get no redress in the courts, they lowered the demand to the present rate of \$200.00—that they may raise it to the former rates is certain, and that they will do it unless public interference is had, there can be little doubt. I am informed from other sources that gins have been erected by other persons, who have not taken Miller & Whitney's machine for a model, but which in some small degree resemble it, and in improvements, far surpass it, for it has been asserted that Miller's and Whitney's gin did not on trial answer the intended purpose, the rights of these improvement however, it appears by the present act, merged in the rights of the patentees, who it is supposed on the lowest calculation will make by it in the two States \$100,000. Monopolies are odious in all countries, but more particularly so in a government like ours. The great law meteor, Coke, declared them contrary to the common and fundamental law of England, their tendency certainly to raise the price of the article from the exclusive privilege—to render the machine or article worse from the prevention of competition and improvement—and to impoverish poor artificers and planters who are forbidden from making, vending or using it without license from the patentees, or in case of doing so, are made liable to penalties in a court of law.

The Federal Court docket, it is said is filled with these actions. I do not doubt the power of Congress to grant these exclusive privileges for the constitution has vested them with it, but in all cases where they become injurious to the community, they ought to be suppressed, or the parties be paid a moderate compensation for the discoveries from the government granting the

patent. The celebrated Dr. Adam Smith observed that monopolies are supported by cruel and oppressive laws, such as is the operation at present of the law on the subject—its weight lays on the poor industrious mechanic and planter. Congress, however, did not intend it so, for when the first law on this head was passed in February, 1793, a few individuals only cultivated cotton, and it was not dreamt of as about to become the great staple of the two Southern States, a staple too, which if properly encouraged must take the decided lead of any other (bread kind excepted) in the United States—the steps proper to be taken to remedy this public grievance you will judge of—on I should suppose that our sister State of South Carolina would cheerfully join Georgia in any proper application to Congress on the subject. I am likewise of opinion that the State of North Carolina and Tennessee must be so far interested as to support such application—if you think with me, I recommend communication with all of them.

Document XI.

WHITNEY'S REPLY TO GOVERNOR JACKSON'S LETTER.

Copied from "The Columbian Museum and Savannah Advertiser," Dec. 23, 1800.

To Governor Jackson:

I have read with sensations peculiar to the occasion your official attack upon our private property, acquired under the patent law of the United States, but we have long doubted whether it were proper to communicate these sensations to the public.

It has always appeared to us that the private pursuits of individual industry are entitled to the most sacred and inviolable protection of the laws, and that a good cause where private right alone was concerned might suffer trivial injuries without acquitting the claim to be presented before the solemn tribunal of public opinion. But when the title to our property is slandered and political persons openly commenced against us under pretence of official duty by our chief magistrate, silence on our part might be supposed to sanction the abuse. The urgency of the case must, therefore, be our apology for meeting your excellency on this ground, and in making a defence of our property right, we shall draw a veil over the passions which have brought

it into question, and, passing over the degraded condition to which the State has been reduced, shall only notice the measure in which we are immediately implicated, and shall consult the genius of our government rather than the acts of your administration, to enable us to preserve towards you that respect to which your office is entitled.

In the first place, your excellency will permit us to remove the deception which is palmed on the public to our disadvantage in the approbrious term "monopoly." The respectable authors whose names were brought forward to sanction your opinion on this subject speak of the exclusive right to carry on a trade or manufacture as a "monopoly," and not of the protection which government chooses to give to the arts. The principle of the patent law, your excellency will please to observe, consists of a fair compromise between the government and the author of the invention. There can be no doubt but what an invention in the arts must remain the exclusive right of the inventor under the most oppressive laws, while the secret is confined to him, and many instances have occurred of the preservation of the secret for years and even of its final loss to the public to the death of its inventor.

To remedy which evil to stimulate ingenious men to vie with each other, governments, by enacting patent laws, substantially agree that they will afford to the author of the invention the most ample protection in the use of his discovery for a certain term of years on condition that after that period it shall become public property. And in carrying into effect of all such discoveries, it is well-known that every inventor must incur the whole expense and take on himself the entire risk of the success of his invention, in which if he fails, his loss of time and money does not always constitute his greatest mortification, and if he succeeds, the public advantage must of necessity go hand in hand with his acquirements, since the inventor cannot expect his invention to be employed or paid for unless it exceeds all others in point of utility. In the present case, we believe the utility of our invention well known and candidly admitted by all rational men. At the time it was brought forward, there were millions of pounds of cotton in the seed, which awaited the event of some improvement in the mode of ginning, and wealth, honor and gratitude were promised to the fortunate exertions of genius which would insure the culture

of green seed cotton to the up-country.

Under such flattering auspices and the protection of the law, the invention was perfected, and at great expense in money, which has never been repaid, and of time and labor, which is unrewarded, and now your excellency would direct your influence to blast the harvest so hardily earned, and which for many years has waived in distant view and buoyed up our hopes under the existence of adversity and oppression, which would have better suited the perpetrators of vice than the industrious and successful improvers of so useful an art.

The idle stories which your excellency condescends to repeat with a view of dividing with some other person the credit of the invention are not new to us, but we always considered as harmless while they only served to amuse some ingenuous mechanic, but the place they hold in the executive message requires us to observe that we know of no pretensions of this kind which can stand the smallest examination, and we challenge the most distant parts of Europe and Asia to produce a model, or a well attested account of a machine for cleaning cotton upon the principle of ours, which was known previous to our invention. We have not even ascertained that a single improvement has been made upon the machine, of which we have not complete evidence of our previous knowledge and experimental use. But whether the form that we have adopted is the best and deserves the preference to that in common use in the up-country, experience must determine. At present public opinion, we acknowledge, in this respect, to be against us.

We have too good an opinion of the understanding of our readers to believe that they can be amused by our following your excellency through the detail of our private concerns. We might as well claim public attention to our mode of planting cotton or cleaning rice. But we are not yet blessed with the vanity which can be made happy by the belief that our words and actions are worthy of scrutiny, and that plain, upright men have a right or wish to know the exact proportion in which we divide our losses or emoluments with the gentlemen who thought proper to be interested in our concern.

The alternative which your excellency suggests of paying a moderate compensation to the patentees, or suppressing the patent, appears to us to be injudiciously chosen, for in the first of these cases, if the bargain is to be all

on one side and the persons who would defraud us of our right are to be the sole judges of the compensation to be made the oppression would be too manifest; and the proposition of suppressing the patent is so bold a thing that we forbear giving it comment.

Of the sum of money which we are likely to make on our invention, we do not pretend to judge, but should be highly gratified if the prediction of your excellency should be justified by the event; should it, however, turn out otherwise and should this public instance of persecution and slander prove greatly to our disadvantage, we persuade ourselves that your excellency has too high an opinion of the equal

rights of men to be unwilling to submit to a court of justice the extent of the responsibility that you have taken on yourself. Appealing as we do to the candor and liberality of our fellow citizens for the justice of our cause and for the consistency of our conduct, we repeat our assurances that we have appeared before them with regret, and hope that it may be the last time that so much of your excellency's attention will be devoted to the private concerns of your constituents, and more particularly of those who are so desirous of peaceably pursuing their occupation, as your obedient servants.

Signed,
MILLER & WHITNEY.

Document XIV.

LAWS
OF
NORTH CAROLINA.

At a General Assembly, begun and held at Raleigh, on the fifteenth Day of November, in the Year of our Lord one Thousand Eight Hundred and two, and in the Twenty-seventh Year of the Independence of the said State.

JAMES TURNER, ESQUIRE, GOVERNOR.

CHAP. I.

An Act to carry into effect a Contract between the State of North Carolina, and Phineas Miller and Eli Whitney.

WHEREAS Eli Whitney, the inventor and patentee of a machine for cleaning cotton from the feeds, commonly called a Saw-Gin, has proposed and offered, in behalf of himself and Phineas Miller, assignee, of one moiety of the patent-right to said machine, to sell to the State of North-Carolina, the sole and exclusive right of making, using and vending the said machine within the limits of this State: And whereas the cultivation of cotton is increasing in this State, and from the invention and use of said machine, likely to become a valuable staple article of exportation, it is expedient that the State of North Carolina do purchase from the said Miller and Whitney, the patent-right to the making, using and vending the said new invention of a machine for cleaning cotton from its feeds, commonly called a Saw-Gin, on the terms and conditions hereinafter mentioned; that is to say, that there shall be laid and collected by the State of North-Carolina, on each and every saw-gin which shall be used in this State, between the passing of this act and the first day of April next, a tax of two shillings and sixpence upon every saw, or annular row of teeth, which such gin may contain; and a tax of two shillings and sixpence for each and every saw, or annular row of teeth, which shall be used in said gins, in each and every year, for the term of five years thereafter. Provided, that the aforesaid Miller and Whitney, before they shall receive, or be entitled to receive any of the money collected by virtue of this act, shall produce their

patent-right aforesaid, and satisfy the Treasurer that they are the true proprietors of the same; which tax, when collected, to be paid to the said Miller and Whitney, or their order, first deducting the Sheriff's usual commissions of six per cent, for collection, from year to year for the term aforesaid: The first payment to be made on the first day of December, in the year of our Lord one thousand eight hundred and three, and the last payment on the first day of November, in the year of our Lord one thousand eight hundred and eight: For which purpose,

It is enacted by the General Assembly of the State of North-Carolina, and it is hereby enacted by the authority of the same, That the good faith of this State be, and the same is hereby declared to be pledged for the due collection of the said tax for the term aforesaid, and for the regular payment thereof, from year to year, on the day and days before mentioned; and for the passing of such laws as may be necessary for the due and the faithful collection and payment of said tax, and for the purpose of carrying this contract into effect, according to its true intent and meaning.

II. And be it further enacted, That all persons who shall use, from and after the passing of this act, any saw-gin, shall make return thereof to the first county court which shall be held in each and every county of this State, after the first day of February next; which return shall be made on oath, to be administered by some Justice of the

* * * * *

COMPTROLLER's STATEMENTS.

Document XV.

The following Statements, marked A, B and C, and the List of Delinquents, are printed at the end of the Laws, agreeable to a resolution of the General Assembly, passed on the 20th of December 1803.

[A] A STATEMENT

Gates	4	243	4	6	6	6	3
Greene	1	161	1	1	1	1	3
Guildford	1	333	8	3	3	8	3
Halifax	1	681	15	11	15	15	9
Bertford	1	278	9	4	278	1	8
Hyde	1	212	1	8	212	1	8
Iredell	1	401	10	1	401	10	1
Johnston	1	368	12	11	368	12	11
Jones	1	220	4	4	220	4	4
Lin. olin	1	460	8	7	460	8	7
Leinor	1	211	13	4	211	13	4
Martin	1	187	8	1	187	8	1
McKlenburg	1	637	10	6	637	10	6
Montgomery	1	627	0	6	627	0	6
Moore	1	321	9	8	321	9	8
Nash	1	239	12	11	239	12	11
New Hanover	1	309	12	12	309	12	12
Northampton	1	145	8	7	145	8	7
Orange	1	597	16	9	597	16	9
Onslow	1	16	9	8	16	9	8
Pasquotank	1	533	14	10	533	14	10
Perquimans	1	597	16	9	597	16	9
Pitt	1	240	19	1	240	19	1
Person	1	290	4	4	290	4	4
Rutherford	1	303	7	10	303	7	10
Rowan	1	293	7	6	293	7	6
Randolph	1	354	7	6	354	7	6
Rockingham	1	281	3	3	281	3	3
Richmond	1	454	5	3	454	5	3
Roheson	1	748	10	9	748	10	9
Stokes	1	737	2	1	737	2	1
Surry	1	327	5	7	327	5	7
Sampson	1	325	1	0	325	1	0
Tyrrell	1	10	2	7	10	2	7
Wayne	1	256	5	9	256	5	9
Wake	1	536	4	7	536	4	7
Warren	1	361	16	9	361	16	9
Wilkes	1	323	18	7	323	18	7
Washington	1	145	14	2	145	14	2
		2132	0	4	2132	0	4
		2112	8	1	2112	8	1

J. CRAVEN, Comptroller.

Extracted from the Documents in the Comptroller's Office of North Carolina.

By the Same Author.

(Now in Course of Preparation.)

Cotton and Cotton Oil.

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PROFITS IN COTTON RAISING.—

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